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The Need for Power and the Choice of Technologies: State Decisions on Electric Power Facilities

June, 1981

Prepared for:
U.S. Department of Energy
Assistant Secretary for Environmental Protection,
Safety and Emergency Preparedness
Office of Emergency Operations
Washington, D.C. 20585
Under Contract No. ACOI-79RG10004

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June, 1981

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Under Contract No. ACOI-79RG10004

Prepared for:
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Assistant Secretary for Environmental Protection,
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Foreword

This report presents the findings and recommendations of a study conducted by the American Bar Association's (ABA) Special Committee on Energy Law (SC) and funded by the U. S. Department of Energy (DOE). The study was initiated by DOE's Economic Regulatory Administration (ERA) and was designed to assess decision-making processes at the state level regarding the licensing of electric generating facilities.

The SC was selected for this project because it possesses qualifications for the successful completion of the study. The SC, established in 1976, works extensively on legal issues involving the character and supply of energy production and demand inclusive of social, financial, and environmental aspects of the legal framework in utility regulation. The SC specifically focuses on state/Federal relationships in dealing with energy issues. The ABA, and specifically the SC, has been in position to be in direct contact with state officials, and has functioned in the primary areas for review and assessment of the legal framework involved in need for power and technology choice determinations at the state level.

One of the significant elements related to the adequacy and cost-effectiveness of the nation's power supply is state regulatory efficiency in need for power and choice of technology decisions. Since 1974, states have assumed a more independent and stronger role in regulating bulk power supply. However, the ambiguity in, and unfamiliarity with state decision-making procedures, particularly in need for power and technology mix issues, creates the need for better understanding and coordination of existing practices in order to promote increased efficiency in power supply planning at state and Federal levels. As decisions for providing increased supply become more significant, policy implementation by state regulators becomes more relevant to meeting the nation's energy needs.

The basic issues which were addressed in the study were need for power and choice of technology; state regulatory decisions which directly influence and affect the nation's energy supply, and the tradeoffs involved in meeting energy needs. State need-for-power decisions are sometimes controversial and include degrees of uncertainty (economic growth, consumer behavior, energy conservation incentives, and adequate reserves) which exemplify the need for a more mature understanding of state regulatory procedures. Similarly, the choice of technology by state regulators is complex and difficult. Fuel availability, demand patterns, fuel prices, and national or state energy policies all have direct bearing on the type of generation mix within a utility or power pool service area. In addition, priorities for a host of issues change (land use, nuclear fuel cycle, petroleum and natural gas) and may lead to increased responsibility which has, historically, been left to the utility industry.

The need to coordinate need for power and technology choice policies with 50 separate state regulatory agencies is an exceptionally difficult undertaking, and the DOE has pursued working with state agencies in these matters. With increasing attention being given to the nation's energy supply policies, the need for increased understanding of state regulatory functions, with regard to need for power and technology choice, becomes imperative, particularly given the uncertainties accompanying state decision-making and its impact on Federal policy in energy supply.

The following report by the SC can serve as a valuable reference to Federal and state officials who recognize the need for a working knowledge of state regulatory processes. The study reviews and determines how existing state decision-making procedures are structured and implemented. Each state is examined and the information herein portrays the statutory criteria, and identifies problems of coordination. In addition, information on the decision process is detailed, including types of information requested, techniques for determining adequacy of data, policies which influence determinations, and options where more effective policies might influence efficiency is detailed. The report focuses on legal and administrative histories, accommodation of interests of concerned parties, and recent innovations, where appropriate, to enhance the regulatory process. The recommendations are structured toward facilitating the state decision-making role.

Executive Summary

Procedural and regulatory problem areas in electrical energy supply have influenced the manner in which decisions on need for power and choice of technology are made. The principle focus on these decisions is concentrated in state regulatory agencies. In recent years, the state regulatory role has become intensified as fuel costs escalated and forecasted electrical demand decreased.

The issues revolving around state decisions on electric power facilities are important facets of the energy supply problem. The decisions by state agencies in approving the sizes and types of new power plants constitute one of the most difficult of all the energy supply issues to resolve. These decisions, made one by one in state offices, collectively establish the total electric energy supply for the nation, accomplish conservation goals, and significantly influence the nation's decrease or increase in the need for imported petroleum. The generating capacity approved by a state agency must reflect the tradeoff between a risk of excess capacity, the cost of which must be paid by the consumers, and a risk of undercapacity resulting in an increased cost of generation and possible curtailments or outages. A choice of generating technology requires not only an assessment of a utility's costs of generation, but also the broader social costs of the technology choice, including the effects on petroleum imports, environmental quality, public health and safety, employment, and regional economic growth.

Traditionally, authority over new power facilities has been vested in public utility commissions which issue certificates of public convenience and neccesity. The proceedings leading to certification have typically done little to advance comprehensive energy facility planning at the state level, particularly as to need for power and choice of technology determinations. Within the past ten years, a number of states have enacted progressive siting laws to strengthen the new power facility planning process. The basic issues addressed in this report are need for power and choice of technology: state decisions which directly influence and affect the nation's energy supply, and the tradeoffs involved in meeting energy demand. The areas of special emphasis included the legal mechanisms and regulatory procedures used to determine and resolve these issues. The effectiveness of state decision-making was assessed, focusing on legal and administrative histories and accommodation of interests of concerned parties. Recent innovations to enhance the decision-making process were also assessed where applicable.

Need for Power: While it would seem evident that issuance of a permit or license to construct a new generating facility would include a determination of the need for the facility, such is not always the case. Forty-five of the fifty states carry out need determinations in conjunction with certificates for new facilities A number of states make need determinations for new facilities in an independent planning process. Other states have planning functions through their energy offices which are unrelated to utility construction. Need for power may also be raised as a factor in rate cases although this may occur after construction permits have been issued. Financial approvals of other kinds (e.g. bond or stock issuance approval) are also used as a mechanism to determine if facilities should be constructed. Fifteen states identified financial approvals as a means of need for power review. A few states make explicit determinations of need for power, but not by issuing a certificate, permit or license. These state agencies use their rate approval and general supervisory powers to prohibit a regulated utility from entering into any contracts for construction.

Choice of Technology: Consideration of technology choice is a comparatively recent innovation. States which have not recently reconsidered their regulatory mandate, tend to leave this matter to the "good management discretion" of the utility. Those states with statutes either newly enacted or amended in the 1970's tend to provide explicit authority for regulatory review of a utility's choice. Although the factors to be considered by the state agency vary, the general rule appears to be that the technology choice must be in the public interest and should result in lower long-term costs to the consumer.

The availability of alternative technology choices is a substantial concern to the states. Often utility commissions are charged with the duty to assure reliable service and adequate supply. Yet in most states there is no regulatory authority with the power to order implementation of conservation programs or other alternative technology strategies. Only in a few states is there the option for an agency to order consideration and/or implementation of alternatives to generation.

In many cases there is a lack of real choices for state decision makers. Recent price trends and national policies have eliminated oil as a choice for baseload and intermediate load capacities. Sites for large hydroelectric facilities appear to be nearly exhausted. For many states, the choice of technology is between coal-fired facilities (and resulting air pollution constraints) or nuclear generation (with safety and public opinion issues). Consequently, the absence of nongenerational alternatives leaves an unhappy choice in many states.

Intergovernmental Coordination: In recent years, a number of new state-level energy facility siting agencies have been created, often with the apparent intent of creating a one-stop siting process. Most often it is this new agency which licenses new facilities. There are sixteen states with newly formed agencies of less than ten years old. Many states have enacted legislation to streamline facility licensing and siting. In some cases, states have attempted to expedite the permit authority by coordinating all state agency participation into a single process. Beyond the need for power and choice of technology questions, states expressed concern over environmental preservation, state energy policies, consideration of alternatives and conservation of renewable sources, and the national energy policy. These factors ranked high among comments received from state agencies. In addition, preservation of special lands was also frequently mentioned.

Time Limits on Decision Making: Twenty-one states have limited the time allowed to decision-makers to complete the licensing process. These limits run from 120 days to 24 months. Seven states allow these limits to be waived, usually for a finding of good cause. In only six states have time limits been changed since the original enabling legislation. In two of these, there were no original time limits established. In three states, the time limits were shortened. Thus, there is no evident trend for statutory elongation of the licensing period.

Public Participation: The degree to which a state fosters public participation is difficult to measure. The public participation concept involves factors which are not susceptible to ready quantification. One measure of the importance a state places on public participation is the existence of a consumer's counsel or some other means of assuring representation of public interests. Even though levels of funding and staffing vary from state to state, the mere establishment of such an office evidences at least a threshold concern for the public viewpoint.

In some states consumer advocates are limited to single issues such as rate or environmental matters, while in other states the consumer counsel's authority may extend beyond utility regulation. While the existence of a consumer's counsel is not a dispositive indicator of the level of public participation, it may be a useful test.

Forecasting and Planning: The success of a state or region in determining the proper amount of generating capacity and the best mix of technologies is dependent on the ability of the utilities and the regulators to properly forecast the peak and total demand for power. More than any other area, demand forecasting and planning have been the subject of experimentation by states, each attempting to achieve the best forecast with the fewest forecasters.

Some states have done no forecasting whatever, and in presuming that the utilities will forecast as part of their business management, have not required forecasts to be submitted for review. Several states review forecasts during licensing or other facility approval, while others routinely review utility plans but without adopting a statewide forecast. There are eighteen states that adopt a statewide electric demand forecast, either independently or using utility forecasts and a state review process.

Delays: Isolating common causes of delays in the licensing process could lead to new mechanisms to resolve or prevent them. Most utilities or state agencies who identified delay problems cited "Administrative delay" or "Federal agency rules and regulations," and "Public Laws." While state-Federal duplication did not receive a great deal of attention among causes of delay, many state officials and utility personnel did refer to a state-Federal overlap. By far, the largest area of duplication was "environmental review." However, both need for power and choice of technology were also singled out. Where specific examples were identified, duplication almost always involved nuclear power plants.

State level delays were less significant. Many delays were attributable not to the state agency but to the applicant utility for changing its proposal, revising its load forecast or changing the proposed on-line date. Some utilities identified state regulators as causing problems either by excessive informational demands, or refusal to approve an application as "complete" to trigger time limits.

Recommendations: No particular substantive results are advocated in the findings of this study. The recommendations are broad in scope and take into account the special characteristics, limitations, and historical perspectives of each of the states:

(1) To the greatest extent feasible, an appropriate state agency should determine the need for power and choice of technology in regular "generic" proceedings. This determination should provide the opportunity for meaningful public participation and should be binding on subsequent certification proceedings;

(2) To complement the open planning process, states should require a fair, timely, and dispositive certification process to judge the conformity of proposed new facilities with an adopted advance plan;

(3) To assure that energy conservation and less traditional sources of power receive adequate consideration, the responsibility for assessing and promoting these options should be vested in the same authority which plans and certifies new facilities;

(4) States should continue to experiment with ways to identify and incorporate multi-state, regional, and national concerns in their planning for energy needs and in the construction of new energy facilities; and

(5) Unless interested participants are given more reason to view the process as fair and unbiased, there will be every incentive to prolong the proceeding, using delay as a tactical weapon. The remedy is to take the steps necessary to assure basic procedural fairness without losing sight of the goal of reaching and enforcing decisions. Prominent among these steps would be the free flow of information among all participants.

GLOSSARY

AFC -- Application for certification - the second stage in California's power plant licensing process in which the California Energy Commission renders a final decision on whether to license a proposed electric generating facility located within the state (it does not apply to out-of-state construction by state utilities); it follows the NOI stage See "NOI", infra; it precedes final decision on need for power and choice of technology and environmental suitability.

AFUDC -- Allowance for funds used during construction - an accounting technique often employed by state regulatory commissions and utilities whereby interest and carrying charges on indebtedness incurred in the construction of long leadtime power facilities are capitalized and included in the total capital cost for later inclusion in rate base at the time the facility becomes operational or otherwise receives rate base treatment during a utility's determination of revenues.

BACT -- Best available control technology - specifies the type of air pollution control technology required on all new stationary sources constructed in areas designated for the prevention of significant deterioration under Clean Air Act 165(a)4. 42 U.S.C. §7475.

B.R. -- California's Biennial Report - beginning in 1977 and every two years thereafter, California's Energy Commission publishes an official statement of state energy policy, including long-range forecasts of demand for electricity and a discussion of the facilities and alternative means necessary to meet projected demand and achieve other societal goals, e.g., clean air, economic growth, etc.; it generally serves as a state energy plan applicable to the licensing of energy facilities and to future directions for the utilities. See, California Energy Commission, 1979 Biennial Report (1979).

California Energy Commission -- California Energy Resources Conservation and Development Commission - established by the Warren-Alquist Act in 1974, the Commission is California's lead agency for the establishment and enforcement of energy policy; it determines licensing of new power plants in the state, as well as planning and assessing energy trends and choices; it shares important functions with the Public Utilities Commission; it administers the NOI, AFC and the BR and consists of a five-member board with an independent staff.

Certificate of Public Conveniences and Necessity or Certificate of Convenience or Necessity -- the traditional certificate, license or permit administered by state public service commissions, required prior to construction of new and capital intensive projects by regulated utilities; also required prior to the provision of utility service to geographical area within a state or municipality; it typically requires a showing of need for the service or facility, that the means selected is prudent and that the applicant is capable of providing the necessary service.

CFM -- Common Forecasting Methodology - requires utilities to submit forecasts using specified methodologies, which require standardization of data gathered and forecasting approach. Required in California by Cal. Pub. Res. Code §25301.

Cogeneration -- the process whereby an industrial producer attaches an electric power generator to onsite industrial steam emmissions in order to "cogenerate" electricity for its own use and sell or otherwise make excess electricity generated available to the servicing electric utility; it is a generic name for the onsite generation of power with partial incorporation into the utility's generation mix.

COT -- Choice of Technology - the decision of what types of power generating capacity to construct; it may include alternatives to new capacity, such as conservation or interconnection with a neighboring utility and choice of fuels and power-plant size; it is increasingly considered as a facet of need for power and overall system planning.

CWIP -- Construction Work in Progress - the accounting practice of including in the rate base for rate-making purposes, funds expended in long-lead time construction projects, notably large power plants, which are not yet completed and in service. In using CWIP consumers pay earlier for projects under construction than in using AFUDC.

Demand Planning -- the process of determining future electrical loads, demand growth, and need for power and new capacity; it includes projecting future electrical demand typically for 5-, 10-, and even 20-year periods; it may also include assessment of the needed mix of technologies, fuels, and peak, intermediate, and baseload capacities; it is generally used synonymously with system planning.

FUA -- Fuel Use Act - abbreviates the Powerplant and Industrial Fuel Use Act of 1978; it generally requires conversion of new and existing electric power and major oil burning facilities to coal-burning capability, but severely hampered by numerous exemptions, waivers and exceptions. H.R. 5146, 42 U.S.C. §§6211, 7193, 8301 et seq.; 15 U.S.C. §796; 45 U.S.C. §§321, 822.

ICC -- Illinois Commerce Commission - established by the Public Utilities Act of 1921, the Commission has traditional regulatory powers over utilities; it consists of a five-member board with an independent staff.

Kw -- Kilowatt - a unit of electrical power (one-thousand watts). Kilowatt-hours are the unit of electrical supply (one kilowatt supplied for one hour, or its equivalent).

Load Management -- any of a variety of techniques used to reduce peak period (hour, day, season) consumption or to shift peak period demand to offpeak ("load-levelling"); it may include premium peak period rates, interruptible service, energy storage, or other means; it is a significant consideration due to the higher direct, operating costs for peaking generation especially since peaking units typically burn oil or natural gas.

Marginal Cost Pricing -- the practice of setting utility rates based on cost of producing the next incremental unit; contrasts with average or rolled in cost pricing; it is generally the basis for peak load pricing since it produces higher rates "at the margin" where more expensive generating technologies and fuels are brought into service.

MW -- Megawatt - a unit of electrical generating capacity (one million watts or one thousand kilowatts); 1000 MW is enough to supply the electrical needs of about 500,000 residential users.

Need for Power -- the demonstration or justification for new electric power generating facilities or equivalent means of supplying consumer needs; it is a traditional requirement in state certification programs incorporated in NEPA reviews at the federal level, notably in the licensing of nuclear power plants by the Atomic Energy Commission ("AEC"), now Nuclear Regulatory Commission ("NRC"); as used in the California licensing process, need for power encompasses a wide range of issues, including the need to meet growing demand, and planning reserve margins, the need to substitute newer facilities for inefficient or polluting units, and increasingly important, particularly in the light of the Fuel Use Act, need to conserve oil and natural gas by substitution of alternative fuels; it also involves the assessment of alternatives to the construction of new capacity such as conservation, load management, and improved interconnections (wheeling, pooling, etc.)

NOI -- Notice of Intent - the pre-certification stage in California power plant licensing process, where applicants outline the features of a proposal and where general conformity with the BR is determined following "public hearings"; approval of a NOI is required before advancing to AFC stage.

One-Stop Licensing System -- an idealized licensing process where all permits, licenses would be considered in a single process before a multi-disciplinary forum (board, commission, etc.) in order to expedite or at least coordinate separate agency reviews and, in some states, to permit the override of permit denials or conditions; no "pure" one-stop system is in current existence.

PURPA -- Public Utilities Regulatory Policies Act - generally requires consideration of federal energy policy standards by state public service commissions. It also sets standards for public participation. 16 U.S.C. §2601 et seq.

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Chapter 1.0 Background and Design of Study

1.1 Energy Supply Issues

Procedural and regulatory problem areas in electrical energy supply have influenced the manner in which decisions on need for power and choice of technology are made. The principle focus on these decisions is concentrated in state regulatory agencies. The issue of state decisions on electric power facilities is an important facet of the energy supply problem. In recent years, this state regulatory role has become intensified as fuel costs escalated and forecasted electrical demand decreased. A report by the American Bar Association's Special Committee on Energy Law identified the nature and dimension of energy supply issues and expressed concern with the decision-making process:

> A principle characteristic of the (nation's) energy problem is the need for long lead time to translate energy decisions into energy availability. Given the reality of our dwindling supply of fossil fuel and our vulnerability to new embargoes on shipment of foreign oil to the United States, we do have the luxury of indefinite and indecisive reflection and debate before the hard decisions must be made. Although we may luck through the short term, decisive action is necessary in the short term if we are to manage the long-term problems.
>
> Immediate and positive action is essential. Such action would include measures to (1) restrict the waste or uneconomic use of energy resources, (2) increase the availability of domestic fossil fuel resources to enhance our ability to cope in the short term, (3) allocate the production and consumption of energy resources in the interest of optimum efficiency, and (4) bring into being new technologies that will yield inexhaustible and renewable energy resources. At the same time, such measures must be reconciled with other important values such as the maintenance and improvement of environmental quality and the preservation of individual freedom.1/

1.1.1 The Energy Decision Problem

The decisions of state agencies approving the sizes and types of new power plants constitute one of the most difficult of all the energy problems. It is these decisions, made one by one in state offices, that collectively establish the total electric energy supply, accomplish conservation goals and decrease or increase our need for imports of petroleum. These same decisions create or avoid certain types of pollution and define our national dependence on nuclear power. Additionally, they can be an important force in encouraging use of nontraditional sources of electric energy.

There is no shortage of advice for state decision-makers. Environmental groups advise them of the air pollution problems of coal and the hazards of nuclear energy. Lending institutions point to the economic advantages of traditional forms of energy production. The conflicting advice often is based upon Federal law restricting the use of petroleum products in state and Federal laws encouraging energy conservation and limiting the use of coal or high-sulfur oil, in laws regulating nuclear power, and in the uncertain legal and institutional implications of the use of unconventional energy sources. These constraints reflect urgent

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1/ Report of the Special Committee on Energy Law. Natural Resources Lawyer, Volume X:4, 1978.

and often conflicting national concerns. Few of them offer certain guidance or workable methodologies to the state agencies charged with making the decisions that must evaluate and resolve the various Federal, state, and local interests through their approvals of power plant size and design.

1.1.2 The Basic Issues

Two basic issues must be addressed by the state agencies: how much generating capacity is needed, and what and how decisions should be made in selecting among various types of generating technology. The generating capacity approved must reflect the tradeoff between a risk of excess capacity, the cost of which must be paid by consumers, and a risk of undercapacity resulting in increased cost of generation and possible curtailment or outages in electricity to consumers. A choice of generating technology requires not only an assessment of the utility's costs of generation, but also the broader social costs of the technology choice, including the effects on petroleum imports, environmental quality, public health and safety, employment, and regional economic growth.

1.2 Need for Power

Power plant design, licensing, and construction is a long-term process (typically lasting 8-14 years) and utilities project future demand for electricity in order to be able to construct plants in time to meet the anticipated need. A typical utility has generating capacity that is 20 percent to 40 percent greater than current peak demand so as to provide reliable service when plants are shut down for refueling, scheduled maintenance, or unscheduled breakdowns. Additional capacity is needed to satisfy anticipated demand growth. Assessment of future demand growth is complex and difficult. Many of the factors determining demand growth are uncertain (e.g., economic growth, consumer purchasing behavior, effects of potential conservation measures and new standards for electric appliances), and there are strong differences of opinion on the social desirability of increased demand growth. Assessment of the adequacy of reserve margins involves a highly technical judgment that traditionally has been left to the utilities.

1.3 Choice of Technology

Because of the time-varying nature of the electric load, utilities require a mix of base, intermediate, and peak load generation facilities. Planning this mix to provide generation at the lowest cost involves the assessment of plants having different economic characteristics, conditions of maintenance, operation and reliability, and other factors. Planning is typically carried out by utilities with the aid of detailed computer-implemented generation expansion planning simulation models.

There are a number of other issues that make the choice of technology difficult and from the state's perspective these issues may not be adequately treated in the utility's own planning. Future changes in fuel price, fuel availability, and in the timing pattern of electric demand are difficult to foresee and all of these factors motivate changes in the mix over time. National and state energy policies may have an important influence on these factors and necessarily on the mix. For example, time-of-day pricing of electricity could induce major changes in the load pattern. Growth in electric space heating due to new gas hookup restrictions could result in major changes in utility load patterns.

Some technologies involve risks of technical failure or large cost overruns. Who will bear these risks? Should state agencies attempt to influence utility technology selection by sharing in the costs and risks of new technology developments?

Should potential interruptions in fuel supply influence technology selection? A diversified mix may assure a continued supply of electricity in the event of a renewed oil embargo, coal strikes, shutdowns in nuclear plants, or other disrupting events.

Many other issues important to the states, the Federal government and general public are not reflected in the typical financially determined choices of technology by utilities. Petroleum imports and their effect on U.S. balance of payments, air quality, and land use are only a few of the examples. Some of these issues may be reflected in the law as standards or constraints on the utilities' choices.

1.4 The State Responsibility

State regulation of electric utilities arose because the utilities were designated monopolies. Consumer interests were to be protected by insuring that utilities would set prices based on the cost of providing service and a fair return to the utility investors, and that the utilities would not inflate their rate base by building facilities that were too large or unnecessarily expensive. Today, state decision-makers must balance economic objectives against other interests and goals, such as conservation, reduction of petroleum imports, assuring ample energy for critical uses, public health and safety, preservation of environmental quality, promotion of desirable regional development and economic growth, employment, and avoidance of undesirable socioeconomic impacts.

Traditionally, authority over new power facilities has been vested in public utility commissions which issue certificates of public convenience and necessity. The proceedings leading to certification have typically done little to advance rational and comprehensive energy facility planning at the state level, particularly as to need for power and choice of technology determinations.[2] Within the last ten years, a majority of the states have enacted siting laws to strengthen the new power facility planning process. Such laws, for example, tend to require more unified approval authority and long-term (10 to 15 years) forecasting, often updated annually. But even then mandates seem to be neither streamlining the approval process on the one hand, nor providing meaningful estimates of power supply and demand that can be effectively used in need for power and new facility reviews on the other hand. Indeed, perhaps, the greatest impetus for strong need for power justifications has come in recent years from the Federal government rather than the states (i.e., the nuclear facility licensing process and the Public Utility Regulatory Policies Act).

1.5 Design of Study

General Objectives: The basic issues addressed were need for power and choice of technology; state regulatory decisions which directly influence and affect the nation's energy supply and the tradeoffs involved in meeting energy needs. The general objectives of this study included:

(1) a review of existing state decision processes which identifies responsible state agencies and statutory mandate;

(2) a summary of the 50-state agencies with a detailed description of procedures used in the certification process;

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[2] The certificate of convenience and necessity, while a basic step in most states, has been supplemented by a growing array of other Federal, state, and municipal clearances and approvals which complicate decisional processes.

(3) selection of two states as case studies for an in-depth analysis of decision-making procedures; and

(4) evaluation of options by alleviating procedural and/or regulatory problems in decision-making processes.

Areas of Special Emphasis: Particular attention was given to the legal mechanisms and regulatory procedures used to determine need for power and type of generation. Included here was analysis of individual state procedures which portrayed statutory mandate, regulatory criteria, and problems of coordination with other state or Federal agencies. The effectiveness of decision-making was assessed, focusing on legal and administrative histories and accommodation of interests of concerned parties. In addition, recent innovations to enhance the regulatory process were assessed where applicable.

Two case studies (California and Illinois) were selected for in-depth analysis.3/ In these case studies, newly emerging energy policy issues, regulatory reform, and implications for structural and regulatory changes were examined as well as the legal and institutional operation of the decision-making process in each state. In order to define the critical issues in existing procedures, utility personnel in addition to state regulators were contacted.

1.6 Conduct of Study

In order to focus directly on legal mechanisms and regulatory procedures used to determine need for power and choice of technology, the study reviewed each state's statutory mandate in detail. Individual contact with each appropriate state regulatory agency was made since these contacts were considered extremely important with regards to defining and interpreting individual state policies and procedures.

Questionnaires were sent to 90 public utilities as well as state public utility regulatory agencies in all 50 states. In addition, public utilities in the states of California and Illinois were contacted and interviewed (see Chapters 4 and 5). The questionnaire and the list of entities receiving the questionnaire are included in Appendices B and C hereof. Written responses were received from the following 32 public utilities: Baltimore Gas and Electric Company, Carolina Power & Light Company, Central Vermont Public Service Corporation, Consumers Power Company, Dallas Power & Light Company, The Dayton Power & Light Company, Duke Power Company, Hawaiian Electric Company, Inc., Houston Lighting & Power Company, Iowa Electric Light & Power Company, Iowa Power & Light Company, Iowa Public Service Company, The Montana Power Company, Middle South Utilities, Inc., Nevada Power Company, New England Power Company, New Mexico Electric Service Company, Newport Electric Corporation, Niagara Mohawk Power Corporation, Oklahoma Gas & Electric Company, Pacific Power & Light Company, Portland General Electric Company, Public Service Company of Indiana, Inc., Public Service Company of New Mexico, Sierra Pacific Power Company, Texas Utilities Company, Upper Peninsula Power Company, Utah Power & Light Company, Virginia Electric Power Company, Wisconsin Electric Power Company and the Wisconsin Power & Light Company.

Responses were received from all state public utility regulatory agencies with the exception of Alaska, Arizona, Kansas, Kentucky, Massachusetts, New Jersey (partial response by phone), Rhode Island, South Carolina, Utah, and Virginia.

The Special Committee on Energy Law and its staff were greatly aided in work on the project by cooperation from most of the state public utility regulatory agencies contacted. In addition, representatives of all American Bar Association's sections having energy-related committees (Natural Resources Law, Public Utilities Law, Insurance, Negligence and Compensation Law, Environmental Law) participated actively in Special Committee deliberations on the study.

3/ See Chapters 4 and 5, respectively.

CHAPTER 2.0: LAW AND PROCEDURES IN THE 50 STATES

2.1 Introduction

Power plant licensing programs in 48 states were evaluated. (California and Illinois, as case study states, were not included). Questionnaires and preliminary narrative descriptions of power plant licensing programs were sent to each state's most relevant agency. Where more than one agency was appropriate, questionnaires were sent to each agency with significant jurisdiction over power plant licensing. Responses from 36 states had been received by March 27, 1980. One state agency returned only the revised narrative without completing the questionnaire. In November 1979, the staff sent questionnaires and narratives to major utilities selected from a list prepared by a utility trade association. The questionnaire sent and the list of state agencies and public utilities receiving the same are appended to the Report as Appendices B and C.

The results of the investigation are tabulated and presented herein. Many of the nonresponsive states have been contacted by telephone, allowing improvements from the preliminary drafts. For five of the nonresponding states, useful information has been received from a utility in the state.1/ Where appropriate, discussion of materials from sources beyond the questionnaires is included, particularly in the tables. An Expansive Draft of this Part two was sent to all public utility regulatory agencies in the 50 states on May 5, 1980, for comment and suggestion. A number of comments and suggestions were received and have been incorporated in this report.

2.2 Need for Power

Table 2-1 displays the data obtained on need for power determinations. Thirty-eight states engage in prior certification of power plants. While it would seem evident that issuance of a permit or license to construct a new generation facility would include a determination of the need for the facility, such is not always the case. South Dakota, for example, issues permits for power plant construction. According to the South Dakota P.U.C., however, need for power is not a factor in the issuance of a certificate.

Other states make explicit determinations of need for power, but not by issuing a certificate, permit, or license. Delaware, for example, does not have statutory authority to license power plants. However, by using its rate and general supervisory powers, the Delaware PSC has ordered the state's only investor-owned generating utility not to enter into any contracts for construction of new

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1/ States not responding to survey as of May 31, 1980 (10).

Alaska
Arizona
Kentucky
Massachusetts*
New Jersey*
New Mexico
Rhode Island*
South Carolina
Utah*
Virginia*

An asterisk (*) indicates that a utility response was received. Oklahoma returned revised narrative only. Vermont responded by telephone.

TABLE 2-1

Need for Power

	None	Explicit Certif.	Rates	Financial Approval	Other
ALABAMA		YES		YES	Advance Plan
ALASKA *		NO	YESd/		
ARIZONA *		YES			
ARKANSAS		YES	YES	YES	Advance Plan
CALIFORNIA **		YES			Advance Plan
COLORADO		YES		YESb/	
CONNECTICUT		YES			
DELAWARE		NOa/		YES	
FLORIDA		YES			Advance Plan
GEORGIA	v	NO	Planningc/	Planningc/	
HAWAII		NOa/	YESd/	YES	
IDAHO		YES	YES	YES	
ILLINOIS **		YES			
INDIANA	v	NO			
IOWA		YES			
KANSAS *		YES			
KENTUCKY *		YES			
LOUISIANA		NO	YES		
MAINE		YES			
MARYLAND		YES	YES		Advance Plan
MASSACHUSETTS *		YESe/			Advance Plan
MICHIGAN		NO	YES	YES	
MINNESOTA		YES			
MISSISSIPPI		YES			
MISSOURI		YES	YES		
MONTANA		YES			
NEBRASKA		YES			
NEVADA		YES	YES		
NEW HAMPSHIRE		YES	YES	YES	
NEW JERSEY *		NO	YES	YES	
NEW MEXICO *		YES			
NEW YORK		YES			
NORTH CAROLINA		YES	YES		Advance Plan
NORTH DAKOTA		YES			
OHIO		YES	YES	YES	
OKLAHOMA *	v	NO			
OREGON		YES			
PENNSYLVANIA *		NO	YES		

	None	Explicit Certif.	Rates	Financial Approval	Other
RHODE ISLAND *		NO			
SOUTH CAROLINA *		YES	YES		
SOUTH DAKOTA		YESf/	YES	YES	
TENNESSEE		YES			
TEXAS		YES	YES	YES	
UTAH *		YES	YES	YES	
VERMONT		YES	YES	YES	
VIRGINIA *		YES	YES		Advance Plan
WASHINGTON		NO	YES		
WEST VIRGINIA		YES	YES	YES	
WISCONSIN		YES			
WYOMING		YES	YES	YES	

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a/ Delaware does not have statutory certficating authority. However, by expansive construction of their rate authority the Commission has ordered the state's only constructing utility to enter into no construction contracts without prior commission approval and demonstration of need. Delmarva Power and Light Co., Delaware P.S.C. Docket #829, Order #1536 (1976).

b/ Limit of 30 days on financial approvals.

c/ Georgia uses rate and financial approvals to control "investment plans" and "construction" but claims no authority for need for power determination.

d/ Hawaii requires submission of construction plans annually for 5 year periods and prior to construction in excess of "$500,000 or 10% of the total plant in service." The latter may be disapproved by the commission, after hearing. Disapproval results in the exclusion of facilities so built from the rate base. (Hawaii PUC General Order #7, Rule 2.3g).

e/ Massachusetts utilities may obtain a certificate if they have been denied a state or local permit. The certificate requires a showing of need and preempts other agencies.

f/ South Dakota makes no need-for-power determination in conjunction with licensing.

facilities without PSC approval and to "be prepared to demonstrate a need for the construction" when seeking such approval. Delmarva Power and Light Co., Del. PSC Docket #829, Order #1536 (1976). Similarly Hawaii's PUC which reviews construction plans may not prohibit construction of new facilities, but should they disapprove construction plans, the completed facility may be excluded from the rate base. Hawaii PUC General Order #7 rule 2.3.

The need for power questions were designed to elicit information about need determination at other stages of the regulatory process. (See e.g. Appendix B, questions A-5-b). A number of states (8) were identified which make determinations on the need for new facilities in an independent planning process. These states are identified in Table 1 by the words "Advance Plan" in the OTHER column. Other states have planning functions, especially through state energy offices, which are unrelated to utility construction.

Need for power is also raised as a factor in rate cases, although this may happen after construction. In Pennsylvania, for example, the issue has frequently been raised in challenging utilities' overall revenue requirements. This could come as a challenge to the inclusion of a facility as a "used and useful" plant or a "plant in service." In Alaska excess capacity was excluded from the rate base to prevent undue hardship to ratepayers when a large industrial purchaser closed down 2/ The issue might also be raised prior to construction in a request for CWIP or AFUDC funding. Twenty-three states were identified as making a need for power determination during rate approval.

Financial approvals of other kinds, e.g. bond or stock issuance approval, are also used as a mechanism to determine if facilities should be constructed. Fifteen states identified financial approvals as a means of need for power review. Interestingly, some of these also used certification requirements, suggesting that financial disapproval might be used later if the need for a facility had changed. On the other hand, they may fulfill other functions. In Colorado, for example, only facility construction "not in the ordinary course of business" might be certified. This provision exempts small facilities from certification. That state's 30-day limit on financial approvals may effectively limit the review of need on all but small facilities.

Apparently five states do not determine need at all: Georgia, Indiana, South Dakota, Rhode Island, and Oklahoma. However, from two of these states (Rhode Island and Oklahoma) no response was received. Thus, mechanisms for determining need for power in these states may exist despite this report's indication to the contrary.

2/ Telephone conversation with Robert Stoller, Attorney, Alaska PUC, November 1979.

2.3 Choice of Technology

The choice of technology question appears to have engendered some confusion. The question was designed to inquire into state review of the utility's choice. Several respondents evidently interpreted the questions as asking whether the state made the decision itself as to which type of generating technology a utility should employ and then imposed that decision on the utility. The question was intended to identify states which exercise regulatory involvement with utility choice of generating technology. Some states checked "no" to the question asking if they determine choice of technology when in fact they substantially review the issue. Oregon, for example, checked "no" and penciled in "although the [Siting Council] must determine under [the Oregon Statute] that a proposed plant is economically prudent compared to alternatives." In other states which responded "no" it was clear that choice of technology issues were addressed through traditional regulatory procedures (e.g., rate requests, sale of securities approvals). Twelve states answered "yes" and 20 "no" to the question, "Does your state regulatory authority determine choice of technology. . .?" Four other states answered "sometimes," although none explained that response.

Consideration of these issues is a comparatively recent innovation. States which have not reconsidered utility regulation recently tend to leave these matters to the "good management discretion" of the utility (New Hampshire is typical of this approach). Those states with statutes either passed or amended in the 70's tend to provide explicit authority for regulatory review of a utility's choice. Although the factors to be considered by the regulator vary, the general rule appears to be that the technology choice must be in the public interest and should result in lower long-run cost to the consumer. Table 2-2 summarizes the factors identified by respondents as being given consideration in making the technology choice.

TABLE 2-2

Factors in Choice of Technology

Which of the following factors are considered:

	Always	Never	Sometimes
a. Rely on utility choice	17	4	8
b. Cost of investment	24	1	1
c. Cost of operation	25	0	1
d. Cost to consumer	25	0	1
e. Environmental concerns	20	4	2
f. Fuel Cycle status	15	4	3
g. Reduce reliance on oil	15	4	3
h. Promote diversity	14	4	2
i. Others (please specify)			

Total responding: 35

The availability of alternative technology choices was a question of substantial concern. Often utility commissions are charged with the duty to assure reliable service and adequate supply. Yet in most states there is no regulatory authority with the power to order undertaking of conservation or other alternative technology strategies. In a few states, such as California and Oregon, an agency has the power to consider and implement alternatives to generation. Without such authority, an agency charged with insuring adequate supply will tend to err on the side of permitting overconstruction.

Another finding regarding choice of technology involves the lack of real choices for state decision makers. Recent price trends have eliminated oil as a choice for base load and largely as a source of intermediate load capacities. Sites for large hydroelectric facilities are nearly exhausted. For many utility commissions the choice of technology is between coal burning (and resulting air pollution constraints) or nuclear (with safety issues and public objection). Consequently, the absence of nongeneration alternatives in many commissions leaves a more limited range of choices.

2.4 Intergovernmental Coordination

One issue this study attempted to examine was the ability of these new agencies to rapidly license new power facilities. In recent years a number of new state-level energy facility licensing agencies have been created, often with the apparent intent of creating a one-stop licensing process. Most often it is this new agency which licenses new generating facilities. Many states have enacted legislation within the past few years to streamline facility siting and licensing. Table 2-3 lists those states that have created new agencies.

One approach to streamlining state agency permit authority seems to be to coordinate agency participation by requiring all affected agencies to participate in the licensing process or be prevented from later acting on the application. Iowa's attempt to do so is now in litigation.

In trying to determine the roles of the various agencies, the states were asked what factors beyond the need for power and choice of technology issues were considered in making final determinations. These results are tabulated in Table 2-4. It is clear that environmental preservation ranks high among nontraditional considerations. State energy policy ranks next, followed by consideration of alternatives, conservation of nonrenewables, and national energy policy. Preservation of special lands is also frequently considered.

2.5 Time Limits on Decision-making

A related question was asked to determine the effectiveness of time limits on the licensing agency. Table 2-5 identifies time limits on the decision-making process. Twenty-one states have limited the time allowed to decision-makers to complete the licensing process. These limits run from 120 days to 24 months. Seven states allow these limits to be waived, usually for a finding of good cause.

In only six states have the time limits been changed. In two of the six (Maine and New York) there were no original limits. In three the limits were shortened. Thus, there does not seem to be any trend toward lengthening the licensing period.

These figures should be read with caution. Some agencies do not "accept" an application or certify it as complete until the agency has investigated the application and determined that all necessary information is available. Thus, an application could be determined incomplete, effectively lengthening the statutory period. At least one agency (Minnesota Energy Agency) views apparently mandatory language as discretionary. ("Within six months....the director shall approve or deny...."). This approach may be common in states without automatic approval provisions or other means of enforcing time limits.

TABLE 2-3

States with "New" Non-Utility Commission Licensing Agency

ARIZONA	Power Plant and Transmission Line Siting Committee
CALIFORNIA	Energy Resources Conservation and Development Commission
CONNECTICUT	Power Facility Evaluation Council
FLORIDA	Department of Environmental Regulation
KENTUCKY	Energy Regulatory Commission
MARYLAND	Department of Natural Resources acquires sites and participates in PUC consideration
MASSACHUSETTS	Energy Facility Siting Council
MINNESOTA	Minnesota Energy Agency
MONTANA	Board of Natural Resources and Conservation
NEW HAMPSHIRE	Bulk Power Supply Facility Site Evaluation Committee
NEW YORK	New York State Board on Electric Generation and the Environment
OHIO	Ohio Power Siting Commission
OREGON	Energy Facility Siting Council
TENNESSEE	Tennessee Energy Authority
WASHINGTON	Energy Facility Site Evaluation Council
WYOMING	Industrial Siting Council

TABLE 2-4

Factors Considered in AFC Besides Need and Technology

In the final decision-making process on new power plants, which of the following factors are explicitly considered for certification of an application as well as need for power and technology choice?

	Always	Never	Sometimes
a. National Energy Policy objectives	15	3	9
b. State energy policy objectives	22	2	3
c. Conservation of nonrenewable resources	18	4	5
d. Environmental protection	21	1	0
e. Alternative energy sources	20	2	5
f. Public health and safety	25	0	1
g. Utility system reliability	26	0	1
h. Preservation of special lands (e.g. agricultural)	15	3	5

2.6 Public Participation

Public participation was examined because it seemed clear that the more, and earlier that public involvement occurred, the greater would be the resulting level of public trust, and the fewer post-decision challenges. The degree to which a state fosters public participation is a difficult thing to measure. Although states were asked to list mechanisms which foster participation, and almost all indicated a variety of programs, it has been difficult to assess the actual operation of each system. The public participation concept involves factors that are not susceptible to ready quantification. Thus, the results in Table 2-6 are presented with caution lest they be misinterpreted.

One measure of the importance a state places on public participation is the existence of a consumer's counsel or some other means of assuring representation of public interests. Though this is clearly only a narrow facet of the issue, it has several advantages for analysis: the establishment of such an office or program is readily identifiable and almost always provided for by an explicit statutory reference. Further, even though levels of funding and staffing vary from state to state, the mere establishment of such an office evidences at least a threshold concern for the public view.

In some states consumer advocates are limited to single issues, such as rates or environmental matters, while in other states the consumer's counsel authority may extend beyond utility regulation, effectively limiting participation in licensing proceedings. Thus, while the existence of a consumer's advocate is not a dispositive indicator of the level of public participation, it may be a useful test.

2.7 Forecasting and Planning

The success of a state (or region) in determining the proper amount of generating capacity, and the best mix of technologies, is dependent on the ability of the utilities and the regulators to properly forecast the peak and total demand for power. More than any other area, demand forecasting and planning have been the subject of experimentation by states, each attempting to achieve the best forecast with the fewest staff.

Some states have done no forecasting whatever, and in presuming that the utilities will forecast as part of their business management, have not required forecasts to be submitted for review. Apparently six states fall into this catagory: Alaska, Kentucky, Louisiana, Rhode Island, Tennessee and Washington.

Seven states review forecasts only during licensing or other facility approval: Alabama, Hawaii, Illinois, Maine, Mississippi, Missouri, Utah and Wyoming. Other states routinely review utility plans, but without adopting a statewide forecast.

Finally, 18 states adopt a statewide electric demand forecast, either independently or by using utility forecasts and a state review process. Table 2-7 summarizes the status of state roles in forecasting and planning.

2.8 Delays

This project was designed to focus on needed regulatory improvements. For this reason special attention was paid to delay factors. Isolating common causes of delays could lead to new mechanisms to resolve or prevent them. Special attention was directed to the issue of delay when utilities were contacted during this study.

Suprisingly few complaints were directed at state regulators; more were directed at Federal agencies. Most utilities or state agencies who identified delay problems cited "administrative delay" or "federal agency rules and regulations." "Public Laws" also received a large share of complaints. While state-federal duplication did not receive a great deal of attention among the causes of delay cited, when asked where duplication did occur many utilities and states chose to respond most frequently with reference to "environmental review." Both need for power and choice of technology were also singled out. Interestingly, where specific examples were identified, duplication almost always involved nuclear facilities.

TABLE 2-5

Time Limits on Decision-Making

	Time Limits	Are Limits Available?
ALABAMA	YES - 90 days after	NO
ALASKA	NOa/	
ARIZONA	YES - 8 mos.	NO
ARKANSAS	YES - 150 days	NO
CALIFORNIA	YES - 18 mos., 12 mos. for geothermal	
COLORADO	NO	
CONNECTICUT	YES - 10 mos.	NO
DELAWARE	NO	
FLORIDA	YES - 14 mos.	YES
GEORGIA	NO	
HAWAII	NO	
IDAHO	NO	
ILLINOIS	NO	
INDIANA	NO	
IOWA	NO	
KANSAS	NO	
KENTUCKY	NO	
LOUISIANA	NO	
MAINE	YES - 15 mos.	NO
MARYLAND	YES - 90 days; 2 yrs. for site approval	NO
MASSACHUSETTS	YES - 6 mos.	NO
MICHIGAN	NO	
MINNESOTA	YES - 6 mos.	NO
MISSISSIPPI	NO	
MISSOURI	NO	
MONTANA	YES - 22 mos.	YES
NEBRASKA	YES - 4 mos.	YES
NEVADA	NO	
NEW HAMPSHIRE	YES - 16 mos.	NO
NEW JERSEY	NO	
NEW MEXICO	NO	
NEW YORK	YES - 24 mos.	YES
NORTH CAROLINA	YES - 6 mos.	NO
NORTH DAKOTA	YES - 6 mos.	YES
OHIO	NO	
OKLAHOMA	NO	
OREGON	YES - 12 mos., 24 for nuclear, 9 for geothermal or turbine	YES

	Time Limits	Are Limits Available?
PENNSYLVANIA	NO	
RHODE ISLAND	NO	
SOUTH CAROLINA	NO	
SOUTH DAKOTA	YES - 12 mos.	NO
TENNESSEE	NO	
TEXAS	NO	
UTAH	NO	
VERMONT	NO	
VIRGINIA	NO	
WASHINGTON	YES - 14 mos.	YES
WEST VIRGINIA	YES - 400 days; 270 if cost less than $50 million	NO
WISCONSIN	YES - 480 days if larger than 300 MW; 150 days if 12-300 MW	NO
WYOMING	NO	

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a/ Where there is no licensing a "NO" has been entered.

TABLE 2-6

Mechanisms of Public Participation

Which of the following mechanisms are provided to facilitate and encourage public participation? a/

Mechanisms	Yes	No
a. Advance Plan (Forecasts) Hearings	9	18
b. Certification Hearings:	10	3
1. Public	10	7
2. Adjudicatory	26	0
c. Written Submissions	31	1
d. Intervention (citizen)	29	0
e. Intervention (local govt.)	26	0
f. Public access to information	31	0

Which of the following, if any, are provided for public participation?

Public funding	2	23
Liberal intervention rules	30	2
Open access to information	30	0
Free or low cost documents	21	3
Free or low cost transcripts	9	15
Hearing party status	30	0

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a/ 35 state responses tabulated.

State level delays were far less significant. Many delays were attributable not to state permit procedures, but to the applicant utility for changing its proposal, or revising the load forecast, or extending the projected on-line date. Some utilities identified state regulators as causing problems either by excessive informational demands, or refusing to qualify an application as "complete" to trigger time limits.

TABLE 2-7

Electricity Demand Forecasts

	Citizen Advocate	Adopts	Duration of Forecast	Requires Forecast Incident to License	Routinely Review Utility Forecasts in Nonlicensing Context
ALABAMA	YES	NO		YES	NO
ALASKA	NO	NO		NO	NO
ARIZONA	NO	NO		YES[a]	YES
ARKANSAS	NO	NO		YES	YES
CALIFORNIA	YES	YES	20 yrs.	YES[a]	YES
COLORADO	YES	YES	10 yrs.	YES	YES
CONNECTICUT	YES	NO		YES	YES
DELAWARE	YES	YES	Unspecified	YES	NO
FLORIDA	YES	YES	Unspecified	YES	YES
GEORGIA	YES	YES	Unspecified	NO	NO
HAWAII	YES	NO		YES	NO
IDAHO	NO	YES	Unspecified	YES	NO
ILLINOIS	YES	NO		YES	NO
INDIANA	YES	YES	1980-2000	NO	NO
IOWA	NO	YES	10 yrs.	YES	NO
KANSAS	NO[c]	YES	Unspecified	NO	
KENTUCKY	YES	NO		NO	NO
LOUISIANA	NO	NO		NO	NO
MAINE	NO	NO		YES	NO
MARYLAND	YES	YES	10 yrs.	YES	YES
MASSACHUSETTS	NO	YES[d]	10 yrs.	YES[d]	YES
MICHIGAN	NO	NO		NO	YES
MINNESOTA	NO	YES	15 yrs.	YES	YES
MISSISSIPPI	NO	NO		YES	NO
MISSOURI	YES	NO		YES	NO
MONTANA	YES	NO		YES	YES
NEBRASKA	NO	YES[e]	Unspecified	YES[e]	NO
NEVADA	NO	NO		YES	YES
NEW HAMPSHIRE	YES	NO		YES	YES
NEW JERSEY	YES	NO		NO	YES
NEW MEXICO	NO	NO		YES	YES
NEW YORK	NO	YES	15 yrs.	YES	YES
NORTH CAROLINA	YES	YES	20 yrs.	YES	YES
NORTH DAKOTA	NO	NO		YES	NO
OHIO	YES	YES	Unspecified	YES	NO

	Citizen Advocate	Adopts	Duration of Forecast	Requires Forecast Incident to License	Routinely Review Utility Forecasts in Nonlicensing Context
OKLAHOMA	NO	NO		NO	YES
OREGON	NO	YES	20 yrs.	YES	YES
PENNSYLVANIA	YES	NO		NO	YES
RHODE ISLAND	YES	NO		NO	NO
SOUTH CAROLINA	YES	NO		YES	YES
SOUTH DAKOTA	NO	NO		YESf/	YES
TENNESSEE	NO	NO		NO	NO
TEXAS	NO	YES	10 yrs.	YES	YES
UTAH	YES	NO		YES	NO
VERMONT	NO	NO		NO	YES
VIRGINIA	YES	NO		YES	YES
WASHINGTON	YESg/	NO		NO	NO
WEST VIRGINIA	NO	YES	10 yrs.	YES	NO
WISCONSIN	YES	NO		YES	YES
WYOMING	YES	NO		YES	NO

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a/ Arizona utilities planning to construct facilities within 10 years must submit forecasts.

b/ California utilities must justify need in relation to the long-term forecast.

c/ But state provides attorney for affected landowners.

d/ Massachusetts utilities submit long-term forecasts to the Facilities Siting Council as a matter of course. The Council holds public hearings and approves these plans.

e/ Nebraska public utility districts submit long-term forecasts to the Power Review Board with power plant proposals. Public utility districts are state entities and to that extent the forecasts are state-prepared.

f/ Generating utilities must submit ten-year plans to the Commission discussing projected demand. They are routinely required and not in conjunction with facility licensing.

g/ On environmental issues.

CHAPTER 3.0

INTRODUCTION TO THE CALIFORNIA AND ILLINOIS CASE STUDIES

3.1 Overview

Chapters 4 and 5 describe the procedures and policies for evaluating need for power and choice of technology in Illinois and California. They reflect interviews with utility officials, state regulatory authorities, and public interest groups in each state. These same persons also met with the ABA Special Committee for discussions and deliberations over positions developed during the study. These Chapters also reflect relevant official decisions and reports on power plant licensing in California and Illinois.

3.2 Summary of Findings

Illinois and California were chosen as case studies because they represent states with very different problems and with different systems for licensing power plants. Illinois has a relatively traditional regulatory program that has not been tested for several years because the state has had surplus generating capacity. Its statutes require a certificate of public convenience and necessity from the Commerce Commission for construction of a power plant, but specify no particular procedures or policies beyond this bare requirement. There are no consolidations of multi-agency authority, no forecasting requirements and no deadlines on administrative decisions. There are few programs to promote electricity conservation or renewable energy development. There appears to be no evidence of significant pressure for change, although this may be due primarily to the lack of any certification proceedings in the last five years. More recently, however, significant generic proceedings have been initiated addressed to forecasting, reliability and supply planning issues.

California's procedures are very different. Numerous plants are in various stages of the licensing process, and power shortages have been a threat in some areas in recent years. Under a 1974 Act licensing of new power plants is largely consolidated in the California Energy Commission. Many of its decisions are subject to statutory time limits. It requires utilities to submit forecasts according to a common forecasting methodology and then prepares an official supply and demand forecast reflecting staff analyses and public comment. The state forecast controls later licensing applications in that it guides all PUC and Energy Commission decisions until the next report is issued. Alternative resources and conservation are promoted by the Energy Commission or the PUC in numerous ways: geothermal plans must be licensed within 12 months, utility rates of return can be reduced for failure to initiate conservation alternatives deemed feasible, and the utilities have been ordered to submit plans for subsidizing installation of solar hot water systems.

While the difference between the states may at first appear striking, significant similarities exist. The California statutes, regulations and policies are much more detailed than those in Illinois, but the basic issues addressed are much the same. Forecasting methods are a controversial issue in both states. In California the legislature has directed the Energy Commission to engage in state forecasting and to adopt a common methodology for utilities. The Illinois Commerce Commission has recognized the importance of forecasting by initiating generic proceedings on the subject. Reliability issues are addressed by the Biennial Report in California; Illinois has initiated a generic investigation on the same topic. While no new power plants have been proposed in Illinois for some time, the issues of need for power and potential alternatives are still very active issues in the context of hearings on rate increases necessary to finance completion of plants approved earlier but still under construction. There is thus substantial convergence on the issues to be addressed in each state, despite the apparent differences in their respective problems and statutory policies. Moreover, the basic procedures used for evaluating these issues are similar. While the administrative structures differ markedly, both states hold public, legislative-type hearings to resolve the broad policy matters associated with the need-for-power and choice of technology determinations.

The differences in administration are more than cosmetic. In California, these proceedings are periodic, formal and quasi-legislative. In Illinois, they are ad hoc, quasi-judicial and until recently rarely involved citizens groups' representatives. California procedures are subject to time limits, while in Illinois there are none. The California Energy Commission and Public Utility Commission tend to accept more responsibility for major policy determinations, while in Illinois utilities perform without any substantial government direction. As a result, regulators in California aggresively seek their own sources of data and analysis, while their Illinois counterparts are much more willing to act on information supplied by the utilities. Finally, the California system rests on the assumption of active government oversight, direction and communication involving the Energy Commission, the Public Utility Commission and the California Legislature, as well as the public itself, voting through public initiative and referendum. The Illinois system rests upon the opposite assumption. There is little legislative direction (as reflected in the decision of a legislative task force not to recommend any changes in the Commission's 1921 statute), and a general delegation of authority to the Commission, subject to local zoning authority over new facilities. Illinois has several diverse energy agencies without a formal system of coordination and exhibits an implicit willingness to defer to the utilities on major questions.

While there are some similarities between California and Illinois, enormous differences in legal structure exist. Each appears to be concerned with the same problems, but each exhibits a distinctively different set of attitudes about the relative roles of the public and private sectors and the legislative and administrative branches in the resultion of these problems.

The purpose in preparing these studies is not to pass upon the merits of these systems, but to look for common problems and issues which may have relevance to the broader issues being addressed. The following tables serve as both an introduction to each state's problem and an overview of the advantages and problems of each.

TABLE 3-1

CALIFORNIA

PROGRAM ELEMENTS	ADVANTAGES	PROBLEMS
1. Binding biennial determination of needs.	1. Needs for power articulated and quantified, including factors such as reduced reliance on imported oil and protection of environment. Provides thorough review of alternative expansion plans at generic planning stage; provides forum to articulate policy issues on environment and social objectives and to quantify this input on supply and demand; serves as binding guide to facility licensing; enhances opportunities for early, open public involvement in process; establishes clearer policy directives; improves state's ability to respond to federal initiatives (e.g., oil displacement); serves to guide planning in related fields.	1. Direct costs in government outlays to the process; may foreclose sensitive balancing between generalized need and environmental harms at site specific stage; may complicate federal efforts to set technology mix policy; if controlling on certification may cause the planning process to become more adversarial.
2. "Common forecasting methodology" to guide utility forecasts and submission to Energy Commission	2. Improves information base by regarding the collection of data in specific areas (e.g., end use consumption patterns, demography, etc.); facilities evaluation and comparison of forecasts from different utilities and other sources; improves opportunities for longer term planning; enhances public confidence in forecasts.	2. Public pays for evaluation of forecasts; if the common forecasting methodology ("CFM") becomes too narrow or rigid valuable diversity could be lost. (There is no evidence of this in California where multiple models--end use, econometric, etc.--are required and utilities may supplement).
3. Biennial determination of alternative technologies (e.g., solar, small generation, conservation).	3. Provides specific guidance for extent of reliance on nontraditional technologies in licensing hearings.	3. Administrative costs.
4. Bifurcated facility and site certification procedures (the "notice of intent" preliminary review of alternative sites, followed by the "application for certification").	4. Provides opportunity for evaluating alternatives sites in considerable detail instead of approval/disapproval of single selected site at eleventh hour; enhances the credibility of final decision.	4. High administrative and utility costs; may increase regulatory uncertainty; possible duplication of reviews; more time required (perhaps as long as 36 months).

CALIFORNIA

PROGRAM ELEMENTS	ADVANTAGES	PROBLEMS
5. Separate agencies for (1) planning and facility certification, and (2) financial regulation (i.e. split between the Energy Commission and the PUC).	5. Provides benefits of "new blood," "fresh faces," etc. in new agency; new agency approach assures that substantial additional responsibilities will not overburden agencies; permits more open evaluation of prior policies generally intended to encourage each agency to "specialize"; interagency competition assures better performance.	5. Governmental costs for duplicated effort; new agency inexperience; procedural complications between agencies; generalized "start up" costs; possible balkanization of authority, undermining planning and regulatory certainty.
6. Consolidation of land use and environmental reviews under single decisional authority.	6. Coordinates regulatory responsibility and provides some consistency; forecloses inter-agency state-local conflicts; enhances regulatory certainty.	6. Environmental and local views may be short-changed by determination in a forum emphasizing other goals; conflict may be repeated within the new agency.
7. Regulatory incentives for legislatively preferred technologies (*e.g.*, geothermal, solar, etc.)	7. Encourages utility investment in technologies deemed relatively acceptable by public representatives; may enhance the diversity of the overall system (providing greater stability and overall security).	7. Preferred technologies, if untested, may reduce system reliability.
8. Regulatory incentives for administratively preferred technolo- (*e.g.*, PUC's rate of return promotion of cogeneration as a supply alternative).	8. See #7 above; may save public large investment costs in baseload capacity, stimulate utility initiatives, and generally enhance role of utilities as "energy service corporations."	8. See #7 above.
9. Statutory and regulatory disincentives to disfavored technologies (*e.g.*, vastly expanded regulatory requirements for the construction of nuclear units).	9. Provides an express public evaluation of major energy issues; effectively guides utility planners and investors in finding alternatives to disfavored technologies; tends to remove some highly divisive issues from individual licensing decisions.	9. May require utility investment in less productive alternatives; may foreclose an option highly favored by many experts; may cause administrators to delay while awaiting more detailed legislative guidance.
10. Exercise of state jurisdiction over power plants to be sited outside of California (re: need, environmental impacts, etc.) if financed by in-state utilities.	10. Assures regulation consistency applied on matters of state concern (*e.g.*, facility located; facilities state consideration of regional issues).	10. May engender opposition of other states; may foreclose logical alternative sites for facilities considered unlicensable within the state but acceptable elsewhere.

TABLE 3-2

ILLINOIS

PROGRAM ELEMENT	ADVANTAGES	PROBLEMS
1. Traditional certificate of convenience and necessity (general performance standards for adequate service, simple procedures, etc.).	1. Involves low administration costs; assures regulatory certainty for utilities due to existence of established relationships and absence of public controversy or second-guessing by the Commission.	1. Few guidelines for future certification due to absence of explicit state policies, procedures, and the likelihood of increased public concern; opportunities for local or other agency vetoes due to "weak" scope of approval (*e.g.*, nonpreeemptive, no formal coordination mechanism, etc.).
2. Utility submits proposal for Staff and Commission reaction.	2. Involves less public expense on experts, planning, etc.; permits greater utility freedom to plan and implement preferences in power development and supply.	2. Lack of expertise and direction in public sector; little direction for future power supplies, no incentives for alternatives; some regulatory uncertainty; great opportunity for public opposition to future facilities; no assurance that utility choices will conform to public expectations.
3. *Ad hoc* determination on the need for power facilities and the choice of technology two years before construction would begin.	3. Involves administrative costs or responsibility; provides general assurance of utility control in the planning and design of power system; facilities internal decisionmaking by utilities.	3. Lack of detailed public information and explicit public policies on generic matters key to future decisions; growing potential for public opposition, which could produce protracted proceedings and possible stalemate on controversial costly facilities; likely failure to consider alternatives within the utilities' control.
4. Generic or investigatory hearings without time limits on matters of state-wide concern (*e.g.*, utility "over-capacity," continuation versus delay in construction schedule, etc.).	4. Provides some flexibility and opportunity to address broad policy issues in Illinois system; encourages utility cooperation and minimizes likelihood that results will be disruptive to utility operations.	4. May come too late for meaningful action (*e.g.*, after units are almost completed); no rules or procedures to guide proceedings; no incentives to complete hearings and make decision; could lead to loss of public credibility if they continued indefinitely.

ILLINOIS

PROGRAM ELEMENT	ADVANTAGES	PROBLEMS
5. Apparently ample opportunity for public participation in licensing and rate cases, but only limited resources to assist participants, and no public counsel.	5. Requires governmental cost; public can participate in hearings.	5. Risk of public cynicism due to meaningless interventions; potential for delays as intervention generates extreme opposition costs; tendency of the public to view utility and regulatory proposals similarly.
6. Regulatory reliance on general performance standards to guide utilities' electrical power policies; concern only for continued adequate service at tolerable cost.	6. Requires low governmental costs, involvement or investment; allows free hand to utilities so long as they commit no disruptive mistakes.	6. Risk of public second-guessing and opposition; public uncertainty for future; overall loss of credibility in system.

CHAPTER 4.0 - CALIFORNIA CASE STUDY

4.1 Introduction

In the field of energy policy, California's problems and responses are of greater than normal interest. Its energy situation presents both tremendous challeneges and significant opportunities. The state must contend with continued population and demand growth, limited indigenous sources of low-pollution fuels and severe environmental constraints on new energy facilities. 1/ At the same time, its resources are considerable and its legislative program has been designed to include some of the most aggressive measures adopted anywhere. A new agency, created in 1976, the Energy Resources Conservation and Development Commission ("Energy Commission"), has been delegated responsibility and provided with substantial resources to deal with the state's energy problems. The Energy Commission has primary jurisdiction in the planning of California's energy requirements, over the construction of power plants and also, to a lesser extent, over the promotion of conservation and the use of alternative energy resources. There is a difference of opinion as to the benefits of this system. However, it is a system that attempts to address the energy needs of the future and should be examined as a source of precedent elsewhere.

There are a number of attractive elements of the California system. State forecasting of demand, for example, is already performed in at least 15 states, although not always in a form binding on utilities. 2/ Similarly, many states prepare environmental impact statements which could be used to directly assess energy needs and alternative technologies. 3/ The California system is unique in its collective detail, its strict timetable for decisions on planning and its consolidation of powers in one agency (regulation, state planning and some enforcement).

4.2 Overview of the California Regulatory System

In the years preceding California's Warren-Alquist Act of 1974 creating the Energy Commission, licensing of power plants had become an unsatisfactory process in California. 4/ There were a multiplicity of state agencies and levels of government exercising independent regulatory powers. While the Public Utilities Commission ("PUC") issued certificates of convenience and necessity for power plants and transmission lines, more than 30 other agencies exercised parallel authority to review and pass judgment on project proposals. 5/ For example, when the PUC attempted to authorize a particular plant in violation of standards set by a local air pollution

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1/ See, California Energy Commission, 1979 Biennial Report, 42-46 (1979) [hereinafter cited as "Biennial Report"].

2/ See, Part II: Law and Procedure in the Fifty States.

3/ See, e.g., Minn, Stat. Ann. §116D.04, (West); 6 Minn. Code of Admin. Rules §3.073; see also Yost, NEPA's Progency: State Environmental Policy Acts, 3 Envir. L. Rep. 50090 (1973).

4/ D. Ducsik, Electricity Planning and the Environment: Toward a New Role for Government in the Decision Process, 358-59 (January 1978) (unpublished doctoral dissertation submitted to the Massachusetts Institute of Technology).

5/ See, California's Energy Commission: Illusions of a One-Stop Power Plant Siting Agency, 24 U. Cal. L. Rev. 1313, 1316 (1977).

control district, the state supreme court held that the agencies had concurrent authority and the utility was ordered to comply with both regulations. 6/ The decision focused public attention on the need for a new system of decision-making.

There was also concern over the absence of procedures for identifying and evaluating alternative utility supply plans. There was no procedure by which alternatives to utility plans could be considered. 7/ The system of decision-making gave no substance to public participation. 8/ The public was first informed of a project only after the utility had decided to proceed with it and the only choice was to acquiesce in the proposal or oppose it. 9/ The timing and manner of decision made significant public opposition inevitable and precluded constructive input at a time when the plan could be modified.

Legislative action became possible because both utilities and their critics saw merit in change. In return for granting state authorities a larger role in system planning, the utilities expected a more rationalized, shorter licensing process, notably one that could restrict a local veto of state-approved projects, as had occurred in Orange County. 10/ Environmental groups were willing to accept some centralization and streamlining of review in return for an expanded opportunity to address system-level issues such as conservation and alternatives, with respect to major power projects before their final formulation.

The compromise that emerged was the Warren-Alquist Act, signed into law by Governor Reagan in May 1974. 11/ Powers previously scattered among 30 or more agencies were consolidated in the Energy Commission which was given the power to override the decisions and powers of local agencies when it found no "prudent and feasible" alternatives to the optimum licensing proposal.

The Act, with its broad mandates, departed sharply from the historically narrow concerns of the Public Utility Commission. The new approach was reflected in the decision to select five full-time commissioners representing distinct areas of expertise. (The required backgrounds are engineering or physical science, environmental protection, economics, law, and the public at large. *Cal. Pub. Res. Code*, §25201.) The new responsibilities, included (1) approval of *construction of new*

6/ *Orange County Air Pollution Control District v. Public Utilities Commission*, 4 Cal. 3d 945, 95 Cal. Rptr. 17, 484 P.2d 1361 (1971).

7/ D. Ducsik, *supra*, note 4, at 359.

8/ The process has been so characterized in D. Ducsik and D. Shakow, *Reaching Electricity Decisions with Environmental and Social Consequences: A Normative View 70* (June 1979) (Energy Studies Group Monograph No. 1, Clark University Center for Technology, Environment and Development).

9/ Id.; Stewart, *Vermont Yankee and the Evolution of Administrative Procedure*, 91 Harv. L. Rev. 1805 (1978).

10/ *Orange County Air Pollution Control District v. Public Utilities Commission*, *supra*, note 6.

11/ 1974 Cal. Stats. 501 (codified at Cal. Pub. Res. Code §25000 *et seq*.).

electric power plants; (2) development of independent long-range plans for meeting state energy needs and reporting to the legislature biennially; (3) promoting conservation and encouraging the curtailment of energy demand through a spectrum of enforceable, dependable strategies, (4) expediting licensing of legislatively designated preferred technologies to generate or replace electricity, such as solar, geothermal and other renewable sources; and (5) identifying possible areas suitable for different methods of electrical generation. The intended result was a new administrative process, designed to provide expeditious, fair and credible decisions, and to assure adequate and environmentally acceptable generation of electricity.

The Act sought to establish a comprehensive and publicly planned structure for the state's future energy needs. The basic planning instrument of the Energy Commission is a biennial forecasting report prepared for the California Legislature. The designated Biennial Report ("BR") is required to contain 5, 12, and 20 year official projections of energy needs and proposals for policies and trade-offs necessary to meet them. It thereafter guides all decisions on proposed new facilities located within the state, until superseded by the next plan. 12/ This replaces the former practice of *ad hoc* licensing of individual utility proposals where institutional planning was largely left to the utilities.

However, despite the substantial authority given to the Energy Commission, the Public Utilities Commission continues to regulate utility rates, revenues, and finances, and therefore could influence the decision of the utilities to build new power plants. While the Energy Commission could, for example, *recommend* changed rate structures to encourage energy conservation only the PUC *could order* it. As a result, there remained considerable overlap in the power of the two agencies. This was illustrated when the PUC refused to authorize inclusion of the proposed Sun Desert nuclear facility in a utility's rate base because of financial concerns, despite the preliminary (NOI) approval of it by the Energy Commission.

The PUC has clearer legislative authority to promote conservation and investments in renewable energy sources. A 1976 amendment provided that the PUC could authorize up to one percent greater return on investment for projects "designed to generate or produce energy from renewable resources" at lower cost over the life of the system than with existing methods. 13/ A similar higher rate was also authorized for experimental projects designed to perfect such technologies or to more efficiently utilize resources. Another amendment directed the PUC to investigate the feasibility of alternative methods of providing low-interest, long-term financing of solar energy systems for utility customers. 14/ In 1975, a PUC decision concerning a rate increase requested by the Pacific Gas and Electric Company ("PG&E") also announced a policy of support for conservation, warning that in future rate proceedings:

> We intend to make the vigor, imagination and effectiveness of a utility's conservation efforts a key question . . . The effort we expect is not limited to exhortation, advertising,

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12/ Plants proposed to be constructed outside the state, as well as transmission lines, are regulated by the PUC. However, the Energy Commission considers out-of-state plants when it determines the need for additional in-state units.

13/ Cal. Pub. Util. Code §454(a) West Supp. 1979).

14/ Cal. Pub. Util. Code §454 (West Supp. 1979). *See* also, *Investigation on the Commission's own Motion into the Feasibility of Establishing Various Methods of Providing Low Interest, Long Term Financing of Solar Energy Systems for Utility Customers*, Decision No. 91272 (Cal. Util. Comm'n., April 6, 1980).

> and traditional means for promoting conservation. We expect utilities to explore all possible cost-effective means of conservation 15/

Subsequent PUC orders have reaffirmed and expanded upon this principle.

4.3 Methodology

The research of the Committee regarding the California regulatory system involved library research and interviews with representatives of the utility industry, relevant agencies and public interests groups both in person and by telephone.

The research was uniformly useful in identifying problems perceived in the California system and the issues which gave rise to those problems. The viewpoints expressed assisted the Committee greatly in its evaluations.

The California system will hereafter be examined in some detail. It is sufficient at this point to observe that the California experience points up the considerable difficulty to be expected in developing a comprehensive energy planning system and the resolution of the conflicting social and political issues that are involved. A "one-stop" open process of energy planning and licensing is conceptually attractive to most. California's experience illustrates the fact that that concept is a hard one to implement.

4.4 California System Issues

California interviewees were requested to judge whether the legislative intent of the Warren-Alquist Act had been fulfilled by the actions of the Energy Commission, and to suggest desirable reforms. The following issues emerged as most significant:

1. Does the Warren-Alquist Act and its administration by the Energy Commission unnecessarily extend the time required for power plant licensing?
2. How have the Biennial Report and the forecasting requirements, in particular, affected decision-making on choice of technology and need for power?
3. How has the Energy Commission responded to the federal policy of reducing oil consumption by utilities?
4. To what extent have environmental constraints affected California's determination of choice of technology?
5. What is the relationship between the Energy Commission, Public Utilities Commission, and environmental agencies during the power plant licensing process?
6. How has California addressed the regional implications of its energy planning?
7. What is California's policy concerning coordination of different utility systems in order to improve overall generating efficiency?
8. What opportunities for public participation are provided in determining the need for power and the choice of technology, and to what extent are citizen comments taken into account?

Each of these questions is addressed below.

15/ *In re Pacific Gas & Elec. Co.*, Decision No. 84902 at 162-162a (Cal. Pub. Util. Comm'n., Sept. 16, 1975).

4.4.1 Timing and Delay

Does the Warren-Alquist Act and its administration by the Energy Commission unnecessarily extend the time required for power plant licensing?

One of the most frequent and cogent criticisms of the California licensing process is the complex and basic structure of the Warren-Alquist Act and its implementation by the leading regulatory agencies. Briefly stated, the licensing process begins with the filing of an application in a Notice of Intent ("NOI") proceeding (The full title is "notice of intention to file an application for the certification . . . .") in which the utility must establish that the facility conforms to the official forecast in the Biennial Report and that there are no preferable alternatives. The notice must propose at least three sites, at least two of which must be found acceptable. Review of the notice of intent must be completed within 18 months. Following the notice of intent, utilities must answer site specific questions in an Application for Certification ("AFC") proceeding also administered by the Energy Commission and also requiring completion of review within 18 months.

Some technologies, including geothermal, however, have legislative preference and must be licensed in 12 months. After the AFC is completed and assuming approval, the utility still must return to the PUC for a Certificate of Public Convenience and Necessity. The PUC also retains authority over rates and revenues and therefore can greatly influence need for power and choice of technology decisions, as noted earlier with respect to Sun Desert.

Whatever determination the Energy Commission and PUC make, siting decisions must be consistent with California's environmental standards, which are among the most stringent in the nation. These standards are, in many cases, administered at the local level. For example, regional air pollution control boards may establish emission standards stricter than the state standards, which in turn may be stricter than minimum federal standards. The Act allows the Energy Commission to override any other state standard when there are no prudent and feasible alternatives available, but much controversy continues to exist as to whether environmental standards adopted in response to federal requirements are state or federal. The process consolidates many power plant licensing issues before the Energy Commission and it does serve a common forum function for state agencies.

Critics claim that the system gives rise to repetitive and potentially conflicting reviews by state agencies with different perspectives. The utilities are most disappointed with the Energy Commission's action at the Notice of Intent stage, which they expected to be a conceptual review of basic questions concerning the need for power, generating choices and site suitability.

Substantial information is required in Notice of Intent proceedings. The complexities of the procedure are well illustrated by the Energy Commission's approval of PG&E's requested NOI for two 800 megawatt ("MW") coal-fired power plants ("Fossil 1 and 2") in July 1979. The Commission set forth its NOI proceedings test: (1) Is the additional capacity needed? (2) Are there any more benign, reasonably available alternative technologies? (3) Is the proposed technology acceptable at the alternative sites proposed? and (4) What are the relative merits of each of the proposed sites?

The first two issues were apparently governed by the conclusions in the 1977 Biennial Report forecast. Need was justified by reference to the Biennial Report which indicated a need for 6,000 MW under the most likely forecast value and 2,600 MW under the low forecast. The Energy Commission staff prepared an "adjusted" forecast for purposes of the proceeding which concluded that 4,400 MW would be necessary by the times the operational dates for the plants were reached. 16/ The conclusion that adequate need had been demonstrated also included reference to federal energy policies and fuel diversification considerations. 17/ In approving the project at the NOI stage the Energy Commission recommended that "Fossil 1 and 2 be considered the lead project or first increment in any group of projects which may be required to meet PG&E's electrical load growth in the mid to late 1980's".

Prior to the hearing the staff and the applicant stipulated that the additional capacity proposed would fall within the adopted forecast. If the forecast were not controlling, its contribution to the licensing process would be substantially lessened. The City of Davis challenged the stipulation, arguing that a finding of need required an investigation of all the alternatives. 18/ In response, the staff contended that "need" and "conformity with the forecast" are ambiguous terms, that the Commission is required to reconcile conflicting goals in the siting process and that the reconciliation was made in the Biennial Report. 19/ The Energy Commission ultimately concluded that two different balancing analyses must be made. 20/ The general merits of the project must be weighed in the decision to approve or reject the proposal, but the need decision should be made in the Biennial Report proceeding. The Commission stated:

> Any balancing as much as practical of competing factors, *as they affect need for new facilities*, should be done as part of the process of adopting *the level of demand and* not in determining conformity with it. 21/ [Emphasis added].

The decision on alternatives was also made essentially by reference to findings required in the Biennial Report but with some opportunity for additional evidentiary showings at the Notice of Intent proceeding. The Commission's factual conclusion was that "no party demonstrated the viability of utilizing additional nongenerational alternatives beyond those in the first Biennial Report. 22/ However, the Commission also applied a very high standard of proof as to proposed alternatives:

> At a minimum . . . the proponent of an alternative should be prepared to demonstrate that there is one disabling characteristic or significant disadvantage to the applicant's proposal which violates a policy or objective of the Act, and that the proposed alternative either solves or avoids these problems while creating no significant ones of its own. Without such a showing, there is no public purpose served by expending the time and resources necessary to demonstrate the acceptability of an alternative proposal. 23/

16/ *Final Report on the Pacific Gas and Electric Company's Notice of Intention to Seek Certification for a Coal Fired Power Plant, Fossil 1 and 2*, 7 Docket No. 77-NOI-4 (Cal. Energy Comm'n., July 1979).

17/ *Id.* at 11.

18/ *Preliminary Report In re Pacific Gas and Electric Company's Notice of Intention to File an Application for Certification of a Coal Fired Power Plant, Fossil 1 and 2*, III-2, Docket No. 77-NOI-4 (Cal. Energy Comm'n., Nov. 22, 1978).

19/ *Id.* at III-7-III-8.

20/ *Id.* at III-2.

21/ *Id.* at III-9, (emphasis in original).

22/ Final Report *supra* note 15 at iii.

23/ Preliminary Report, *supra* note 17 at III-6.

Factual questions concerning the compatibility of the proposed units with each of the three proposed sites proved to be more troublesome. At first, the Commission thought the decision could be made with reference only to air quality and waste management issues. However, it later concluded that the judgment was more involved: "As the evidence unfolded . . . it became apparent that fundamental acceptability is locational as well as technological."[24] The Commission then considered issues of biological resources, health effects of air pollutants, water availability, and socio-economic impacts. It appears that the Energy Commission was approaching these questions in more of a conceptual sense at the NOI than at the AFC level, but they were nonetheless addressed at the earlier stage.

As an alternative to the NOI/AFC process, some have suggested either abbreviating the NOI proceedings to avoid detailed evidentiary proceedings or simply eliminating them in favor of a single certification with explicit recognition that the suggestion may mean merely quicker rejection. Some would prefer a new approach in which basic policies would be more clearly spelled out by the legislature, including procedures to relax or waive environmental standards. As precedent, they cite a recent state law expediting the siting of a liquified natural gas terminal at Point Conception.[25] The Act gave the PUC exclusive authority, set a time less than 11 months, and set specific limits on population density, terminal size, and location.

Others note that delay and uncertainty were as great or worse prior to the Act, and that, because the agency was new, many procedures and factual questions that were addressed in initial proceedings need not be addressed later. While they admit to the complexities of the Notice of Intent procedure, they believe improvements can be made without substantial revision. The point is made that the issues would have to be faced sooner or later in any case; a more complete NOI proceeding should allow the Application for Certification Procedure to be processed on more of a ministerial basis.

The statute has created substantial difficulties for the licensing of nuclear units which are favored by several of California's utilities. The Sun Desert nuclear units proposed in 1975 by San Diego Gas and Electric ("SDG&E") were withdrawn due to regualtory difficulties despite obtaining NOI approval. The Energy Commission staff initially rejected the application for failure to comply with the requirement that the utility submit at least three alternate sites and that at least two be found acceptable. More critically, the facility came up against California's nuclear safety laws which were recently held to be unconstitutional.[26] These required the Energy Commission, among other things, to determine whether an acceptable means has been demonstrated for the disposal of radioactive waste. These stemmed from a number of legislative enactments passed in 1976 in contemplation of the vote on Proposition 15, an initiative measure designed to phase out existing nuclear facilities and prohibit new nuclear units.

The Sun Desert proposal was finally withdrawn following a decision by the PUC denying application of San Diego Gas and Electric Company for a rate increase submitted in order to continue to carry the project on schedule. In denying the petition, the PUC found that the utility was not internally capable of carrying such large long-term debt, and that external financing would result in "demands for substantial and continuous rate relief." As an alternative to Sun Desert, the PUC ordered that SDG&E use its best efforts to negotiate a contract for the firm purchase of 800 MW of capacity in three stages from the Government of Mexico, which was then preparing to construct a number of large oil-burning units, and to have on-line one Mexican unit by 1983.

24/ Final Report, supra note 15 at ii.

25/ LNG Terminal Act of 1977, Cal. Pub. Util. Code 5551 et. seq. (West Supp. 1979). See Hearings Before the Joint Committee on Energy Policy and Implementation, Testimony of Emilio Varanini, III, Appendix B (November 1, 1978).

26/ See Cal. Pub. Res. Code §§25524.1-25528. The current validity of California's scheme of nuclear power plant regulation is questionable. See Pacific Gas and Electric Company v. State Energy Resources Conservation and Development Commission, 48 U.S.L.W. 2725, April 25, 1980, (holding that the Federal Atomic Energy Act preempts California nuclear safety regulation).

Some critics argue that it is the Energy Commission's administration of the Warren-Alquist Act, rather than the statute per se, that has caused substantial delay. A frequently heard complaint is that the Commission has failed to certify the construction of a single electric power facility in its five-year history. One attorney for a large utility views the Energy Commission as "wallowing in procedural paralysis." (except for the Geysers 17 unit which benefited from a change in the law designed to speed geothermal use). Where large new units are concerned, only two proposals (Sun Desert and Fossil 1 and 2) have progressed enough to receive favorable action in the NOI.

Defenders of the Energy Commission and the certification process, in general, emphasize the number of electric generating facilities which do not require Commission approval. The Warren-Alquist Act contains an extended "grandfather clause" which serves to exempt from formal review some 15,000 MW of additional capacity. 27/ (See Figure 4-1). This amounts to a 50 percent increase in current utility capacity, gives utility planners great feasibility, and provides the Energy Commission with a "legislative grace period" in which to "find our way up the learning curve" of a very complicated set of laws.

Commissioner Varinini testified on this issue in hearings before the California Legislature of the Joint Committee on Energy Policy and Implementation (November 1,1978):

> To date, we have completed two NOIs, both substantially with the statutory time frames. We are currently processing seven NOIs and two AFCs. Of these nine projects....., all are on schedule and several, including four geothermal projects, are substantially ahead of the statutory schedule. Finally, we have approved both of the NOIs which have reached us for decision. Thus, the image of a ponderous bureaucracy, deliberately delaying or disapproving every new power plant proposal that comes before it is absolutely false and not supported by empirical evidence. 28/

In support of this claim, the Energy Commission prepared Figure 4-2 to document its past consideration of applications within statutory time limits. (See also Table 4-1).

TABLE 4-1

California Energy Commission
Listing of Expected Filings
(1979) to April, 1980

PLANT	MW
Stanislaus	2400
SMUD Combined Cycle	150
Geysers 18-21	440
NCPA 1	66
SCE Coal	1500
DWR Geothermal	165
DWR Coal	1000
SMUD Geothermal	100
TOTAL	5821

Critics also allege that whether or not the Commission eventually licenses needed units in time, it has at the very least added substantial costs to the licensing process. According to several utility representatives, one of the significant factors consuming time and driving up costs is the "information requests" of the Energy Commission staff. Their statements reflect a heightening controversy over level of detail necessary to submit an application adequate for formal docketing. The time limits for decision do not begin to run until the Energy Commission formally accepts the application, and in

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27/ Cal. Pub. Res. Code § 25323 (West supp. 1979).

28/ Hearing before the Joint Committee on Energy Policy and Implementation, Testimony of Emilio Varinini, III (November 1, 1978).

FIGURE 4-1

CALIFORNIA CAPACITY IN MEGAWATTS UNDER CONSTRUCTION EXEMPTED, UNDER REVIEW AND EXPECTED FILINGS IN 1978

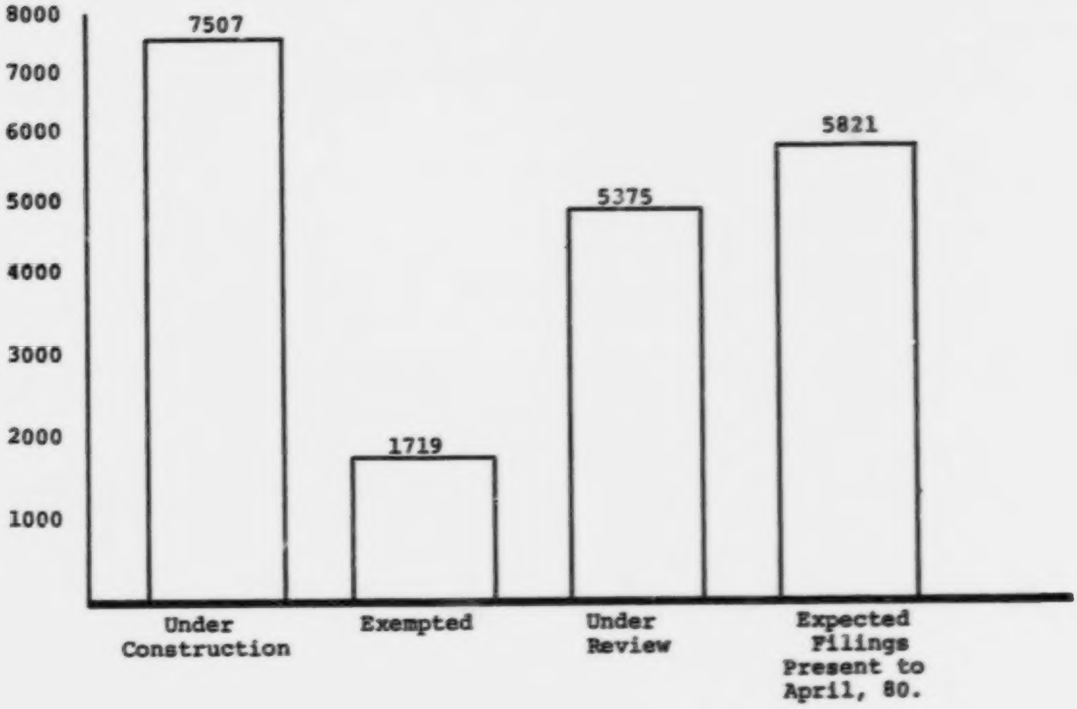
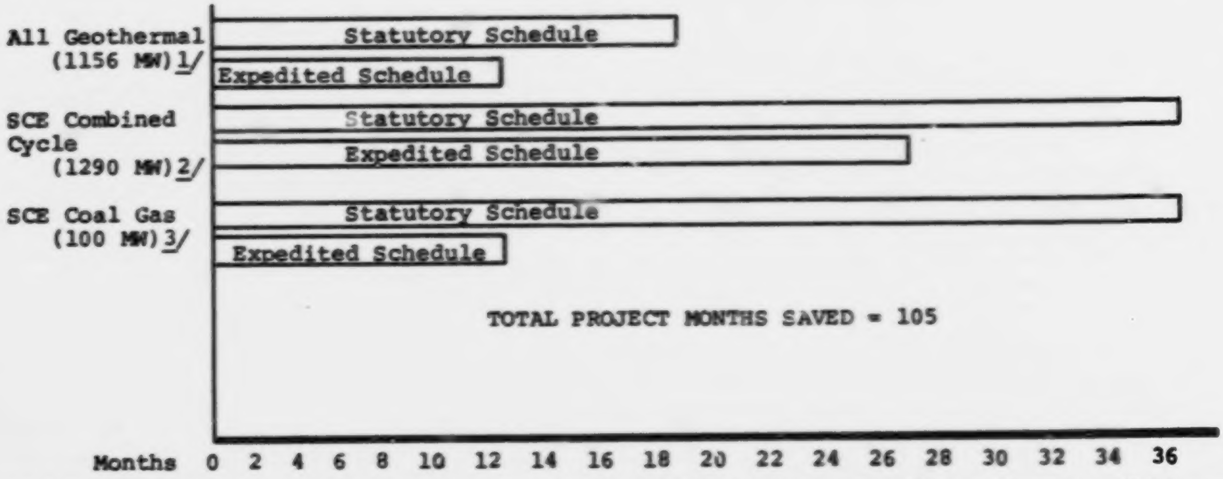


FIGURE 4-2

STATUTORY PROJECT TIMELINES VS. CALIFORNIA ENERGY COMMISSION EXPEDITED SCHEDULES (1979)



1/ 12 filings either inhouse or expected by 1982; 2/ Assumes a 15-month NOI and 12 month AFC; 3/ Presently anticipated; longest possible time = 16 months.

this way it may circumvent the schedules imposed by the Warren-Alquist Act. 29/

The Energy Commission defends its informational demands and takes the position that utility applications have been made with the clear expectation that they would be found unacceptable. In that way the Commission is forced to spell out what additional information is necessary for appropriate processing of applications. One utility official stated that it is a matter of company policy to submit draft applications several months in advance for formal submission. Utility and Energy Commission staff will than meet to try and resolve informational controversies before the application is formally submitted. The Energy Commission accepted the most recent Notice of Intent application, a coal-fired facility proposed by the Southern California Edison Company ("SCE"), rejecting staff objections that the submission contained insufficient information concerning air quality effects and sources of necessary coal supplies. The acceptance was, however, conditioned upon agreement by the applicant that the limit on review time would not be enforced. 30/

4.4.2 State Forecasting

> How have the Biennial Report and the forecasting requirements, in particular, affected decision-making on choice of technology and need for power?

Before a unit can be approved at the NOI stage, the sponsors must show that it conforms to the projections and policies adopted in the most recent Biennial Report.31/ The Biennial Report process squarely confronts the questions of need for power and the choice of technology as central economic considerations. Since the information in the BR is binding on subsequent siting procedures, the reports are the subject of frequent disagreement between the Energy Commission and public utilities.

Section 25309 of the Warren-Alquist Act requires the Energy Commission to prepare a "comprehensive report" commencing January 1, 1977, and every two years thereafter, which will describe probable electrical energy demands for 5, 12, and 20 year "forecast as assessment periods." This forecast must:

> . . . reasonably balance requirements of state and service area growth and development, protection of public health and safety, preservation of environmental quality, maintenance of sound economy, and, as may be provided by law, conservation of energy and resources reasonably expected to occur. Such. . . forecast or assessments established by the Commission shall serve as the basis for planning and certification of facilities proposed by electric utilities. 32/

Utilities also submit forecasts using a common methodology specified by the Commission.33/ Some observers consider the availability of comparable data from all utilities to be as significant as the Energy Commission's own forecast, since utilities have in the past defined reserve margins, loss of load probability, and other key assumptions using different methodologies.

The Warren-Alquist Act requires the Energy Commission forecasting process to include social factors ("social balancing") the utilities sometimes consider to be extraneous to proper forecasting. As used by interviewees, the term "social balancing" encompasses a broad array of issues that center upon the question of the levels of demand to be met by additional power supplies. These levels are determined after identifying and weighing the negative externalities to be expected from providing the requisite facilities, as well as population growth, economic developments, the introduction of new appliance and similar external factors.

29/ The Fossil 1 and 2 NOI proceeding cost the applicant about $13 million, with substantial further proceedings remaining. An evaluation as to whether this is excessive in comparison with prior experience is beyond the scope of this study.

30/ *In re* Southern California Edison Co., 79-NOI-3 (California Energy Comm'n, 1980).

31/ Cal. Pub. Res. Code §25524; CEC, Power Plant Siting Policy Paper 42, 45-6, 57. 11/79.

32/ Cal. Pub. Res. Code §25309 (West Supp., 1979).

33/ The 1979 utility submissions were lower than 1977 CEC forecasts but higher than the CEC 1979 forecast, a difference attributable primarily to expected increases in electricity rates.

The most notable externalities recognized in the Warren-Alquist Act are air and water pollution, cooling water supplies, loss of open space, diversion of consumer purchasing power to energy projects and, increasingly dominant, the consumption of nonrenewable and scarce energy resources. By considering these and other factors the Energy Commission produces an "independent forecast" in the Biennial Report that becomes a social as well as a natural resources plan for the state. Energy is considered as simply one ingredient in the future planning of the state. This process goes beyond extrapolations of past demand.

In the 1979 Biennial Report the Energy Commission set forth its policy on forecasts:

> The need for new power plants and transmission lines must be based on many factors. Utility resource planning considers forecasts of consumer demand against existing and anticipated resources, but it also considers reserve requirements to maintain reliable service, retirement of inefficient units, and uncertainties in either supply or demand. At the same time, a utility must consider its general financial condition, including its operating expenses and expected revenues, and a variety of other factors that affect its ability to finance the construction of new facilities.
>
> In choosing between supply alternatives, a utility must consider: the capital and operating costs of new facilities; the need to diversify the mix of resources or to reduce reliance on a particular fuel; the relative ease or difficulty of finding suitable sites or gaining regulatory approval; the availability and price of fuel; and the manner in which various alternative technologies may fit into the needs of the overall system. When a utility's management decides that a 1,600 MW coal plant is needed by 1988, for example, that decision may be based on many factors that transcend considerations of electricity supply and demand. 34/

Despite the provisions in the Warren-Alquist Act for the consideration of social impacts, the 1979 BR forecast incorporates numerous assumptions viewed as unnecessarily conservative by environmental groups. The principal argument concerns the Commission's responsibility to take into account conservation measures "reasonably expected to occur." The Biennial Report lists many potential sources of conservation which were not factors in the final forecast, including the use of passive and active solar systems, decreased use of major electrical appliances by residential customers, conservation effects of community programs, accelerated use of renewables through proposed financial incentives, benefits of proposed federal building energy performance standards, etc. (See Table 4-2).

34/ Biennial Report, supra note 1 at 39 (emphasis in original).

TABLE 4-2

ACHIEVABLE CONSERVATION MEASURES (1979)

Measure	Energy Savings (in Gwh)*	Peak Demand Reduction (in MW)*	Comments
1. Reduce transmission voltage levels	4,378	375	Extends SCE's program statewide
2. Replace existing street lamps with more efficient lamps	198	0	Extends PG&E forecasts of lamp efficiency statewide
3. Increase efficiency of residential lighting	3,460	212	Requires replacement of existing lights with screw-in fluorescents
4. Improve efficiency of ventilation systems in commercial sector	598	180	Requires all new commercial units to be 15 percent more efficient
5. Improve efficiency of water pumping	517	104	Requires small pumps on farms to improve by 10 percent
6. Improve the efficiency of A/C motors in residential sector	478	720	Requires 15 percent more efficient applicable standards by 1986
7. Improve the efficiency of refrigerators	1,530	237	Requires 20 percent more efficient appliance standards by 1986

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*Value derived from technical documentation of staff forecast.

The Commission's reason for not making some allowance for these developments appears to rest on a rather narrow reading of the statute. The 1979 Biennial Report states that "[o]ur forecasts do not incorporate many demand reducing and energy-saving actions which may occur because their effects will not be known for some time." 35/ But the Commissioners also state that despite their inability to predict specific developments and exact reductions, "we know from our experience in the last six years that these and other conservation actions will have a major effect on the need for new power plants." 36/ An Energy Commission analysis undertook the task, however, of quantifying the impacts of an aggressive conservation and renewable energy policy. The staff's "Alternative Resources" scenario incorporates many of the measures excluded from the forecast including active and passive solar and various changes in federal fuels policies. 37/ This scenario would result in a 12 percent reduction in end-use energy requirements and a net economic benefit of $53 billion (undiscounted) by the year 2000. 38/

Cooperation from the California Legislature, state and local agencies, the Federal Government and the public will be necessary to realize conservation goals. Since power plants are the one supply option the Commission controls, they may feel bound to err on the high side in case the preferred course does not come about. The Report states in another context:

> To stimulate economic growth, business investors and consumers must be reasonably confident that the electricity needed for new and expanded production and services will be available on a timely and reliable basis. 39/

Predictions based on low assumptions might risk energy shortages, and foster business perceptions that could discourage desirable investments. The report does not consider whether a high forecast creates a similar disincentive to conserve and use renewable energy sources.

As already suggested, the Energy Commission feels that some basic decisions about energy policy should be made by the legislature rather than through administrative processes. This viewpoint was expressed by Commissioner Varanini, in a May 1979 letter to Leo McCarthy, Speaker of the California Assembly, which set forth many of the points developed in the Biennial Report:

> Under the present policy inertia, the state is drifting toward continuation of the conventional energy future, if not a stalemate. The legislature can end this drift if it chooses to provide clear direction. There seems to be a broad consensus over where we must go, but a strategy for getting there is lacking. The Energy Commission could provide this strategy, but even in a less divisive climate no administrative agency, however constituted, can successfully carry out an innovative energy policy which has any significant social or political implications, without an unambiguous statement of priorities and direction from the public's elected representatives. The legislature must make the choices, set the policy, and provide directives to implement that policy. 40/

35/ Id. at 42.

36/ Id.

37/ Id. at 30.

38/ Id. at 30, 34.

39/ Id. at 39.

40/ Letter from Emilio Varanini, III, to Leo McCarthy (May 3, 1979).

On the other hand, it is quite clear that in a conceptual sense California has a distinct, if procedurally confused, energy policy. Commissioner Varinini stated in 1978:

> We are so often criticized for not developing a definitive energy policy for California. In fact, California does not have a fairly definitive policy on electrical generation. 41/

Whatever position is chosen, the California situation has clearly changed considerably. The traditional relationship between utilities and regulators, in which the former initiate and the latter react on an *ad hoc* basis has undergone a transformation. Since the Energy Commission's report serves as the primary basis for its own licensing decisions, utilities are forced to react to a binding plan not of their own making or control. The Report, however, takes shape and receives its approval only after extensive reviews of the utilities' resource plans, staff proposals, draft reports, and consideration of public and utility testimony at hearings held throughout the state. 42/ In short, it is difficult to say exactly who is the initiator and who the reactor is in the highly integrated public planning process which the Biennial Report requires.

4.4.3 Oil Conservation

How has the Energy Commission responded to the Federal policy of reducing oil consumption by utilities?

California is both a large producer and consumer of oil. It is the fourth largest oil producing state (over one million barrels a day), with large supplies of heavy crude and offshore oil. Oil also supplies 65% of the state's total energy needs; 60% of the generating capacity owned by the four largest utilities is supplied by oil or gas (see Table 4-3). North Slope Alaskan oil which began in 1978 has added substantially to California domestic supply.

Because of its size and oil dependence, California will be seriously affected by federal proposals to reduce consumption of oil by utilities. Although the Energy Commission objects to direction by the Federal Government of the means of reducing oil use, the agency strongly endorsed a 50% reduction of oil and gas use in power plants by 1991. 43/ The 1979 Biennial Report's list of planned new capacity includes 6,870 MW for oil and gas displacement, implicitly accepting factors other than load growth as the basis of need for power. 44/ To achieve the 50% target, the Biennial Report makes several recommendations including intensified conservation efforts, modifications of restrictions to permit the use of natural gas or the revision of the proposed Bonneville Power Administration rate structure to encourage the use of excess power from the Pacific Northwest, and financial and regulatory incentives to accelerate the development of cogeneration, geothermal, and renewable energy resources.

The Commission stongly recommends against replacing oil units with coal-burning plants. 45/ The Commission believes such a policy would cause air quality violations, a wasteful scrapping of existing oil-fired plants, unacceptable financial strains on utilities, and premature investments at a time when other preferable alternatives are available.

Because rising oil prices and questions about future oil availability, the states utilities have moved independently toward conservation and alternative sources of fuel. San Diego Gas and Electric Company, for example, announced in February, 1980, that it will begin buying surplus geothermal energy from Mexico and save the utility about 1,000 barrels of oil a day. 46/ Southern California Edison announced the same month that it will purchase $400 million of coal-fired electrical power from an Arizona

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41/ E. Varinini, *supra* note 24 at 7.

42/ Biennial Report, *supra* note 1 at 14.

43/ Id. at 48-49.

44/ Id. at 48.

45/ Id. at 49.

46/ Wall Street Journal, February 13, 1980.

TABLE 4-3

CALIFORNIA ENERGY COMMISSION

CURRENT FOUR MAJOR UTILITY SERVICE AREA SUPPLY PLANS BY FUEL TYPE*

Fuel Type	Existing 1978 Total MW	Existing 1978 Total %	Retirement	1979-1985 Addition	Total MW	Total %	Retirement	1986-1991 Addition	Total MW	Total %	Retirement	1992-1998 Addition	Total MW	Total %
Coal	2,500	7	-200	200	2,500	5	-100	4,900	7,300	12		2,300	9,600	13
Oil & Gas	22,700	60	-200	3,700	26,500	53	-700	1,400	26,900	43	-2,700	300	24,500	32
Nuclear	1,400	4		5,000	6,400	13		1,400	7,800	13		3,300	11,100	14
Cogeneration	200			200	400	1		100	500	1			500	1
Hydro	7,400	19		1,600	9,000	18		100	9,100	14	-100		9,000	12
Geothermal	500	1		1,200	1,700	4		1,000	2,700	4		800	3,500	5
Wind, Fuel Cells, Solar, Biomass								500	500	1		500	1,000	1
Transfers	3,500	9	-600	500	3,400	6	-400		3,000	4	-300		2,700	3
Unspecified								4,800	4,800	8		10,000	14,800	19
TOTAL	38,200	100	-1000	12,400	49,600	100	-1,200	-14,200	62,600	100	-3,100	17,200	76,700	100
CFM II Peak	32,900				42,300				52,500				65,700	
Reserve Margin(%)	16.1				17.3				19.3				16.7	

*Includes PG&E (with SMUD), SDG&E, LADWP, and SCE.

Source: Energy Choices for California.....Looking Ahead 69 (March, 1979).

utility between 1984 and 1989, replacing about 13 million barrels of oil.47/ Several Southern California utilities own 48% of the recently approved Intermountain Power Project in Utah, expected to be operational by 1989. Collectively, currently planned coal units could displace 65 million barrels of oil a year by 1990; the state's three largest electrical utilities currently burn about 90 million barrels of oil per year.48/

In March 1980, Pacific Gas and Electric petitioned the PUC for permission to audit and finance at no interest specified residential conservation measures.49/ The plan is modeled after one administered by a Portland utility under it, homeowners could, if they chose, make no payments until such time as ownership of the property was transferred. Initially the program would be tested in part of the utility's service area at a cost of about $10 million to save 56 million kilowatt-hours.50/

4.4.4 Environmental Constraints

To what extent have environmental constraints affected California's determination of choice of technology?

While the Energy Commission may not directly order utilities to adopt a particular supply plan,51/ there is an explicit procedural bias in favor of preferred technologies (shorter deadlines, fewer stages for review, etc.). The Public Utilities Commission has also indicated its preference for utility investments which conserve energy and have a smaller marginal cost than supply from conventional sources.52/ The Notice of Intent process adds a further variable with respect to choice of technology due to the requirement that at least two acceptable sites must be selected before a project can be approved for final certification.

In addition to these factors, environmental and resources issues present major constraints on the use of some technologies anywhere in the state and therefore also present indirect incentives to the use of others. Nuclear and coal power plants, the two preferred choices of the state's largest utilities, are both limited by environmental pressures. The impact of environmental constraints on particular technologies is not always clear in the context of individual plants, but is really apparent when the utilities supply plans are viewed comprehensively. To meet utility projected demand with either coal or nuclear alone would require 23,500 MW of capacity additions between 1991 and 2000. According to the 1979 Biennial Report, the coal scenario would require 48 sites, all in relatively undeveloped locations, causing air pollution to shift from urban to rural areas and producing 10 million tons of ash and sludge per year.53/ The nuclear scenario would increase annual quantities of radioactive wastes to about 900 tons of high-level waste and 500,000 cubic feet of low-level waste per year by 2000. Under either plan, cooling water requirements would increase about ten-fold to as much as 450,000 acre-feet a year by the year 2000.54/

47/ Wall Street Journal, February 11, 1980, at 17.

48/ Id.

49/ *In re Pacific Gas and Electric Company, Application for Authority, among other things, to implement a Conservation Financing Program*, Docket No. 59537, (Cal. Pub. Util. Commission, March 25, 1980).

50/ After the cost of conservation was apportioned between PG&E's gas and electric customers, the cost was estimated to be .031 dollars/kwh. *In re Pacific Gas and Electric Company, Application for Authority, among other things, to implement a Conservation Financing Program and Include a Procedure for a Conservation Financing Adjustment of PG&E's Electric and Gas Rates Tariffs*, Appendix A, Application No. 59537 (March 25, 1980).

51/ Cal. Pub. Res. Code §25523.

52/ *In re Pacific Gas and Electric Company, Application for Authority, among other things, to increase its rates and charges for Electric Service*, §§X, Decision No. 91107 (Cal. Pub. Util. Commission, December 19, 1979).

53/ Biennial Report, *supra* note 1 at 22.

/ *Id.* at 24.

As already noted, the Commission rejected the necessity of a large fraction of the demand proposed by the utilities so that the described effects are not really at issue. The Report notes, however, that air pollution limitations create much more immediate obstacles on the use of coal, and that other provisions of the Warren-Alquist Act effectively prevent the use of nuclear power plants. In general, the Act provides that the Commission may not certify additional nuclear plants until it reports to the legislature that the authorized U. S. agency has approved a technology for disposal of high-level radioactive wastes.55/ In a January 1978 report, the Energy Commission found that none of the several methods presented for waste disposal had proven to be feasible.56/ The 1979 Biennial Report reaffirmed this conclusion and added that the Federal program could take 15 to 20 years without any assurance of providing the necessary scientific validation.57/ The law was challenged by the state's largest utilities; a district court held for the plaintiffs in March 1979 and an appeal was pending as of May 1980.58/

The limitations on coal arise from emission limitations under the Clean Air Act as implemented by state and local authorities. Partly because of the nuclear restrictions, PG&E proposed a two-unit 1,600 MW coal plant and in late 1979 Southern California Edison proposed three 500 MW units. The 1979 Biennial Report states, however, that "it may be extremely difficult to site more than 2,000 MW of coal statewide, using existing 'Best Available Control Technologies (BACT).' Expected improvements in BACT by 1990 increase this to 5,000 MW."59/ A further increase to 10,000 MW is considered possible only through adjustment of local emissions limitations and the necessary cooperation of air pollution authorities is by no means assured.60/ The Report concludes that there is "a reasonable need" to certify one coal plant site in the northern part of the state and one in the south.

Air pollution requirements also indirectly affect the choice of technology. The cost of coal units has been increased considerably by the need for stringent emission controls. The SCE estimated that its proposed coal plants would cost $4.4 billion, including nearly $1 billion for pollution control equipment. The regulatory time frame is also increased by the need to collect air pollution data 61/, and the applicant must proceed without assurance of ultimate approval. Another example is the requirement for "tradeoffs" or mitigation measures to reduce total emissions in an area by at least as much as the proposed plant will produce. This condition means that coal units may have to compete with existing emissions sources, which emit similar pollutants, particularly those which may provide cogeneration.62/

Environmental constraints may be creating pressure to site plants out-of-state where the waste disposal laws are less restrictive and the emission limitations are generally less burdensome.

55/ Cal. Pub. Res. Code, §§25524.1-25528. *See*, California Energy Commission, Nuclear Fuel Cycle Committee, Studies of Nuclear Fuel Processing Spent Fuel Storage and High-Level Waste Disposal, *Overview and Summary*, January 11, 1978).

56/ Id.

57/ Biennial Report, *supra* note 1 at 19.

58/ *Pacific Legal Foundation v. California Energy Resources Conservation and Development Commission*, 9 Envir. L. Rep. 20149 (S.D. Cal. March 1979); *accord*: *Pacific Gas and Electric Company v. State Energy Resources Conservation and Development Commission*, 48, U.S.L.W. 2725 (April 25, 1980).

59/ Biennial Report, *supra* note 1 at 44.

60/ Id.

61/ *See* discussion of informational demands in Discussion Question 1 of this chapter.

62/ A 1979 California statute mandates the air pollution control districts inventory potential cogeneration sources and reserves sufficient emission allowances for them. Ch. 1.5, Section 41515, California Health and Safety Code.

4.4.5 Interagency Coordination

What is the relationship between the Energy Commission, Public Utilities Commission, and the environmental agencies during the power plant licensing process?

The Warren-Alquist Act makes the Energy Commission the agency primarily responsible for approving new power plants in California. However, the Commission's authority is far from exclusive, the the PUC and the Air Resources Board (ARB) both exercise substantial jurisdiction on related issues.

The Air Resources Board has general responsibility for meeting Federal air pollution standards. As already discussed, air pollution requirements severely limit the construction of coal plants in the state. In addition, the administration of the air pollution laws is complicated by legal uncertainty concerning delegation of authority over power plant emissions. The Warren-Alquist Act provides that the Energy Commission's issuance of a certificate is "in lieu of any permit, certificate, or similar document required by and state, local, or regional agency, or Federal agency to the extent permitted by Federal law." 63/ This phrase has not been further defined and its application to state agencies implementing Federal environmental requirements has yet to be clarified. The question is not merely academic because state and local air pollution agencies have substantial discretion when fulfilling Federal Clean Air Act requirements. 64/ While all new major sources, including coal plants, must comply with minimum national standards, state and local officials may chose to apply more stringent controls in order to achieve regional ambient standards. Failure to impose more stringent requirements on some sources can mean tougher control for others. The allocation of total emissions consistent with ambient standards has serious financial consequences for dischargers and the proper burden for utilities may not be viewed identically by the Energy Commission and air pollution authorities.

The air pollution program is not always administered in ways that mesh neatly with the time limits and procedures established in the Warren-Alquist Act. For example, in the Fossil 1 & 2 Notice of Intent Proceeding, PG&E had the burden of showing, through modeling, that available offsets were sufficient at the proposed sites to reduce ambient pollution enough to absorb emissions from the plants. The Air Resources Board and the utility could not agree on the type of model necessary, and the Energy Commission made its approval conditional on a satisfactory Preapplication for Certification demonstration. 65/ Some other key data requirements also had to be left for the Application for Certification. Moreover, some decisions had to be made in the absence of a final state implementation plan, which in theory will provide for a growth increment. As the decision states, "(g)iven the dialectic nature of air quality regulation, the policy may totally change by the time Fossil 1 and 2 is constructed." 66/

To reduce this uncertainty as much as is possible without further legislation, the Energy Commission and Air Resources Board approved a "Joint Policy Statement of Compliance with Air Quality Laws by New Power Plants." Pursuant to this statement of policy:

> (T)he ARB or local district within which a site is located prepares and submits a report during the NOI phase which contains a preliminary assessment of Best Available Control Technology (BACT) and of the substantial likelihood of compliance with the New Source Review (NSR) rule, including a list of conditions which must be met before the facility can be brought into compliance. At the time of the AFC, the ARB and/or local districts will prepare a determination of compliance addressing the appliance local, state, and Federal air quality requirements. If the Energy Commission finds that a facility is needed for the public convenience and necessity and that no more prudent and feasible means exist of doing so other than the proposed project, the Commission may certify the facility as long as it complies with the Federal standards. However, this agreement clearly intends that an override of local or state standards must be the exception rather than the rule.

63/ Cal. Pub. Res. Code §25500 (West Supp. 1977).

64/ See, 42 U.S.C. §§7401-7642 (1976).

65/ Final Report, supra note 15 at 19.

66/ Id.

> To maintain the established Ambient Air Quality Standards (ASQS), the emissions of any new facility cannot exceed the established New Source Performance Standards (NSPS). Any facility which prima facie cannot comply with these standards will not receive a permit from the designated authority. However, the ability to comply with these emission limitations does not necessarily guarantee that the facility will be constructed. If the proposed location falls within an area which has experienced more than three violations of state or federal standards over the last three years, it is deemed a non-attainment area. Before a new source can be built in these areas, the proponent of the project must demonstrate a net air quality benefit regardless of whether the facility meets the NSPS. In order to allow a certain amount of growth in areas of already deteriorating air quality, the 1977 amendments to the Clean Air Act established a policy of providing either an allowance for a growth increment in the SIP [State Implementation Plan] or the possibility of obtaining trade-offs whereby the contribution of a new facility's emissions could be offset by increased controls on existing sources. Neither of these approaches may be utilized unless it can be demonstrated that they represent "reasonable further progress" toward attainment. 67/

The 1979 Biennial Report also addresses several related points. 68/ Local emission requirements are criticized for intentionally excluding new power plants in some cases. The Energy Commission proposed a joint executive-legislative task force on air quality and energy planning to investigate possible compromises, including simplified air quality reviews for preferred energy technologies, a growth increment for pollution from refineries retrofitted to convert heavy crude oil into gasoline, and an "offset credit" to utilities for conservation or other actions which reduce air pollution below amounts provided in the state plan.

The PUC has also used its powers over utility rates and revenues to promote utility conservation programs consistent with the policies established by the Energy Commission. As noted earlier, the PUC has received some legislative direction in this area but has also acted independently. 69/ A recent significant effort arose from a proposal made by an intervenor group, the Environmental Defense Fund ("EDF"). EDF prepared a computer model which assertedly demonstrated the financial benefits of conservation, cogeneration, and other alternatives to investments in central station systems. The EDF then requested that the PUC penalize PG&E for failing to make the most prudent investments. In a December 1979 decision, the PUC responsed favorably to EDF's arguments and PG&E was found to have taken inadequate action to promote cogeneration. 70/ PG&E's allowed rate of return was reduced by 0.2%, or

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67/ Id. at 17.

68/ Biennial Report, supra note 1 at 62.

69/ See, e.g., Application for Authority, among other things, to increase its rates and charges for Electric Service, supra note 48.

70/ Investigation on the Commission's own motion into the Electric Resource Plan and Alternatives of Pacific Gas and Electric Company and the Ratemaking Implications and Options Relating to the Various Plans, Decision No. 91109 (Cal. Pub. Util. Comm'n., Dec. 19, 1979).

$7 million, subject to return if the utility arranged contracts for 600 MW of new cogeneration capacity within two years. Other utilities were advised to expect the same scrutiny.

The PUC also recently concluded an investigation into alternative methods of providing low-interest financing of solar energy systems for utility customers at the request of the legislature. [71] At its conclusion the PUC ordered the state's four largest utilities to install solar-assisted water heaters in at least 175,000 houses over a three-year period through a variety of financing means. Federal restrictions on such programs must be waived by the Department of Energy before they can go into effect. [72]

4.4.6 Regionalism (Interstate)

How has California addressed the regional implications of its energy planning?

A 1976 study of regional considerations in siting energy facilities concluded that "there is no recognition in the statutes of the fact that several power systems in California are in turn interconnected with the Western Systems Coordinating Council (WSCC) system nor of how these interrelationships might affect California energy planning." [73] As evidence, the authors cited an opinion of the State Attorney General holding that electric plants built outside the state to serve California customers must meet California standards, including preparation of an environmental impact statement.

California's energy relationship with surrounding states comes about in several ways. The most direct connection is construction of power plants in other states by California utilities. Southern California Edison Company plans to own part of three nuclear units in Arizona. Additionally, 2,500 MW of coal-fired plants are currently in this category and plants for another 3,750 MW are in advanced stages of planning or constructions. [74] Another 3,000 MW of peaking capacity is obtained from the Pacific Northwest and partly repaid with energy at night or other low-demand periods. Other non-firm purchases displaced 36 million barrels of oil in 1976 and 1978. [75] Because of the substantial economic benefits from these imports, the 1979 Biennial Report recommends new entities to supply up to 4,300 MW of additional peaking capacity from Oregon, Idaho, Montana, Arizona, Nevada, New Mexico and Mexico.

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[71] *Commission Investigation into the long-term feasibility of establishing various methods of providing low interest financing of solar energy systems*, OII-42, (Cal. Pub. Util. Comm'n., Jan. 2, 1980).

[72] 42 U.S.C. §§8201 *et seq*. (1978).

[73] N. Wengert and R. Lawrence, *Regional Factors in Siting and Planning Energy Facilities in the Eleven Western States*: *A Report to the Western Interstate Nuclear Board* (November 1976).

[74] Biennial Report, *supra* note 1 at 44.

[75] *Id*. at 46.

An out-of-state strategy is also apparent in the supply plans of San Diego Gas & Electric. The company's plans are based primarily on the purchase of a share of out-of-state plants or with utilities in other states. 76/

The importance of these power sources was emphasized by a near shortfall in capacity during 1979 due to several outages at nuclear plants. The statewide reserve margin dropped to about five percent. While utility officials cited this as evidence of the state's precarious situation, the Energy Commission denied there was ever a crisis since substantial power was available from outside the state if needed.

Less directly, California is also looking to its neighbors for support in opposing what it views as federal centralization of energy policy. A western states energy lobbying group was formed to coordinate state efforts. The Energy Mobilization Board and the synthetic fuels program are among the federal measures considered most threatening to state interests. 77/

The Biennial Report includes only negligible reference to the need for cooperating with neighboring states. In regard to construction of coal plants out-of-state, the Report refers only to "potential" limits. 78/ In summarizing additional capacity requirements, 1,400 MW is listed for meeting "potential reduction in out-of-state transfer." 79/ In several cases federal benefits provided to other states are criticized for discriminating against California. The rates charged by Bonneville to Northwest customers are criticized for inducing waste; proposals to significantly increase Bonneville rates to California utilities are criticized for discouraging oil displacement. 80/

It should be noted that the Energy Commission does not have jurisdiction over plants sited out-of-state, although the existence of such plants is taken into account when evaluating the need for additional capacity in California. The California PUC decided to require a Certificate of Public Convenience and Necessity for the proposed Kaiparowits coal plant in Utah, but the issue died when the plans were dropped. It is clear that the PUC could effectively exercise controls over out-of-state plants through its control of utility rate base and rate of return.

4.4.7 Regionalism, (Interutility)

What is California's policy concerning coordination of different utility systems in order to improve overall generating efficiency?

One way to reduce the need for new power plants is to use existing capacity more efficiently. Utilities in different parts of the state may face peak demands at different times of the year and therefore be able to help each other reduce operating costs. Those utilities most dependent on high cost oil plants may be able to reduce their costs by buying power from systems with excess nuclear or geothermal capacity. Similarly, potential cogeneration and wind opportunities may go undeveloped because they are in areas with excess capacity.

76/ Id.

77/ See, Biennial Report supra note 1 at 64-65.

78/ Id. at 44.

79/ Id. at 48.

80/ Id. at 46-47.

The potential gains from such arrangements, termed "power brokering," are discussed and generally supported in a 1979 report by the Energy Commission staff. 81/ According to the report, "currently utilities operate more in a go-it-alone style. They only exchange power under unusual circumstances and miss opportunities to save money and energy, and prevent their customers from doing so." 82/

Legislation was recommended to require utilities to transmit power from any small power producer to another nonutility customer and to authorize a statewide system like one in Florida for the daily dispatching of power from a centralized point 83/ The 1979 Biennial Report does not discuss the issue or the staff recommendations.

4.4.8 Public Participation

What opportunities for public participation are provided in determining the need for power and the choice of technology, and to what extent are citizens comments taken into account?

Public participation is widely cited as one of the principal motivating concerns behind the Warren-Alquist Act. The Biennial Report process engenders a dialogue involving the utilities, the Energy Commission, other state and local agencies and the public is assessing the energy issues affecting the state. All evidence submitted by the utilities by law is available to the public 84/ with hearings held after the staff prepares a preliminary report (which includes proposed demand forecasts). Hearings at proposed sites are required before the Notice of Intent and Application for Certification proceedings. The Act also created the Office to Public Advisor to "insure that full and adequate participation by all interested groups and the public at large is secured in the planning, site and facility certification, energy conservation, and emergency allocation procedures." The Advisors's office thus represents an effort to institutionalize support for public involvement in all aspects of planning and licensing by the Energy Commission. Summarizing the purpose of these provisions, Commissioner Varanini affirmed that one of the major reasons for creating the Energy Commission was to institute "an open planning process." 85/ The key characteristics of this process, according to Varanini, are (1) a public forum in which the basic policy choices concerning how much to build, what to build, and where to build can be debated; (2) a meaningful requirement that the project proponent demonstrate the validity of the choices made in proposing the project; (3) an opportunity to identify and correct major "mistakes" in utility supply planning; and (4) elimination of proposals that cannot acquire public support and acceptance.

While there is no doubt that the Biennial Report and other elements of the California statutes have gone far toward bringing major policy issues into public view, it is less clear whether the Commission has been successful in developing public participation. One study of the Commission's first year of operation was particularly critical of the restrictions placed on the Advisor's office, 86/ a view echoed by some environmental representatives.

81/ California Energy Commission, California's Energy Challenge - The Next Twenty Years 121-22, 202-5 (1979).

82/ Id. at 121.

83/ Id. at 203-04.

84/ Cal. Pub. Res. Code §25223.

85/ E. Varanini, III, supra note 26 at 6-7.

86/ Ducsik, supra note 4 at 448-452.

Public participation in PUC proceedings is considerable, although there is no consumer counsel. Representatives of the PUC credit the Environmental Defense Fund for advancing the agency's consideration of alternative supply planning methodologies.

Neither the Warren-Alquist Act nor the PUC statute provide specifically for compensation to "public interest" participants in their proceedings. However, in the 1979 PG&E rate case a citizen group petitioned for attorney's fees and costs on the basis of the PUC's discretionary authority to "supervise and regulate every public utility in the state and to do all things, whether specifically designated. . . or in addition thereto, which are necessary and convenient in the exercise of such power and jurisdiction." 87/ The group cited Section 122 of the Public Utilities Regulatory Policies Act ("PURPA"), which mandates payment of costs to participants in proceedings involving PURPA standards 88/ substantially contribute to the approval, in whole or part" of a position advocated on behalf of electric consumers. They must also show that but for such compensation they will suffer financial hardship. The PUC denied the petition without prejudice on the basis of two pending proceedings. 89/ The California Supreme court has since decided those cases, allowing intervenor compensation to both attorneys and non-attorneys in quasi-judicial PUC proceedings but denying it in a quasi-legislature rate case. 90/ The PUC is considered procedures for determining intervenor compensation in a separate proceeding. 91/

4.5 Conclusion

The Warren-Alquist Act has resulted in some notable achievements. The breadth and detail of energy information which it has generated is impressive. The choices facing California have been analyzed in a fashion that was not possible prior to the creation of the Energy Commission. Public debate has been furthered by the procedures of the Commission.

87/ In re Pacific Gas and Electric Co., Application for Authority, among other things, to increase rates and charges for Electric Service, supra note 48 at 192-3, citing TURN v. PUC S.F. No. 23868 and Consumers Lobby Against Monopoly v. PUC, S.F. No. 23863.

88/ 16 U.S.C. §2632 (1979).

89/ In re Pacific Gas and Electric Co., Application for Authority, among other things, to increase rates and charges for Electric Service, supra note 48 at 192-3, citing TURN v. PUC S.F. No. 23868 and Consumers Lobby Against Monopoly v. PUC, S.F. No. 23863.

90/ Consumers Lobby Against Monopolies v. PUC, ______ Cal. 3d _____, 160 Cal. Reptr. 124, ________ P.2d ______ (1980).

91/ Commission Investigation for the purpose of determining need for and establishing procedures for the determination and award of fees and costs to intervenors in electric ratemaking proceedings pursuant to Section 122 of PURPA, OII-39 (March 13, 1979).

Perhaps the principal dilemma facing the Energy Commission is the conflict between what it sees as desirable -- technologically, economically and socially -- and what it has the power to implement. Some of the changes it seeks, particularly in the conservation area, depend on public cooperation which may or may not be forthcoming. Others, such as transforming electric supply utilities into "energy service corporations" will require the understanding and support of both the legislature and the affected utilities. Still others are contingent on actions by other state and federal agencies. The Commission's only direct control over utilities is the licensing of power plants; it cannot order an alternative supply plan. The PUC with its power over rates, securities and services has a range of options to implement policy. The Energy Commission's options are more limited; it may only delay or reject applications for power plants. The Energy Commission must therefore cooperate with the PUC in order to accomplish many of its stated goals. The Commission's response to this dilemma has been to describe as clearly and quantitatively as possible the benefits of the preferred course, while exercising its own responsibilities on the assumption that current policies will continue. At the same time, the Commission has attempted to maintain flexibility and to recognize the difficulty of accurately forecasting long-term energy needs.

While the cause of greater public information and involvement has been in a sense the greatest beneficiary of the Warren-Alquist Act, the utilities have had difficulty adjusting to an entirely new regulatory environment. They must now produce far more detailed information for public scrutiny and at an earlier stage than ever before, and they must react to independently prepared state proposals and analysis. Discussion once focused on arguments the utilities were able to frame but they now must react to proposals over which they have no direct control.

Given the Energy Commission's admission that it cannot achieve all the goals it was created to address, it is fortunate that the PUC appears to support largely the same objectives. The Energy Commission, PUC, and Air Resources Board each have independent statutory authority but must cooperate with each other to achieve their mandates. Viewing this situation one can appreciate the decision by some states (such as Connecticut, Massachusetts, New Hampshire, New York and Ohio) to form a power plant licensing agency comprised of representatives of both the PUC and the environmental agencies.

Lastly, the specific procedures established by the Warren-Alquist Act and the Energy Commission for approving power plant proposals have engendered much resentment and complaint. The law is still young, it was enacted essentially without precedent and its implementation paralleled the most difficult period in the history of utility regulation.

Ultimately, final judgment on the value of the Warren-Alquist Act depends on the frame of reference. If the critical issue is considered to be timely supply of relatively low-cost power needed to meet new demand, it is too soon to decide. Because of the recent period of declining growth rates, arguments about demand forecasting will take years to resolve. If, on the other hand, the central issue is viewed as the merits of open planning and an enhanced public role, the California experience appears to be a positive one.

CHAPTER 5.0 - THE ILLINOIS CASE STUDY

5.1 Overview of the Illinois Regulatory System

The Illinois Commerce Commission ("ICC" or "Commission") administers a statutory scheme for power plant certification essentially unamended since 1921. 1/ No utility may begin the construction of a power plant until the ICC grants it a certificate of "public convenience and necessity." 2/ The utility also must obtain separate approvals from other agencies at the local, state and federal levels. For example, the Illinois Pollution Control Board enforces each environmental standard, 3/ while local governments must approve zoning, each acting independently. 4/ The Commission lacks authority over environmental and local land-use regulations, but it does examine these issues on the basis of its general public interest responsibility in some detail before it grants specific certificates. 5/

While the total process allows widespread opportunity for interagency conflict and overall delay, neither the Commission nor the utilities express dissatisfaction with its operation. 6/ However, it has been five years since the ICC last reviewed an application for a major facility. 7/ During that time, licensing issues have changed dramatically. Demand growth has slowed and utilities have inherited substantial generating capacity in excess of the reserve margins which they believe necessary to assure reliable service. 8/ The next proposal to build a large power plant undoubtedly will engender greater public scrutiny than in the past, presenting challenges which the Illinois regulatory system has never before encountered. 9/

1/ Public Utilities Act of 1921, 1921 Ill. Laws 702, 1933 Ill. Laws 839, 1949 Ill. Laws 1220, 1957 Ill. Laws 1175, 1965 Ill. Laws 1336 (Ill. Rev. Stat. ch. 111-2/3).

2/ Public Utilities Act of 1921, art. IV §55, 1921 Ill. Laws 702, 1957 Ill. Laws 1175, 1965 Ill. Laws 1236, (Ill. Rev. Stat. ch. 111-2/3, §56).

3/ Illinois Environmental Protection Act. P.A. 76-2429, P.A. 78-862, P.A. 78-1285, P.A. 80-1470, (1970), (Ill. Rev. Stat. ch. 111-1/2, §1005).

4/ Planning, Zoning and Urban Rehabilitation, 1961 Ill. Laws 576, 1961 Ill. Laws 2092, amended by P.A. 76-601 (1969), (Ill. Rev. Stat. ch. 24, 11-12-4).

5/ See e.g., In re Commonwealth Edison Co. Order and Certificate of Public Convenience and Necessity, Docket No. 56034 (Ill. Commerce Comm'n., Aug. 13, 1971).

6/ See, Memorandum from Tor D. Kolflatt, Chairman Electric Utilities Task Force, to Representative Daniel Pierce, Chairman, Energy Resources Commission (April 23, 1979).

7/ The last certificate of convenience and necessity was issued for Commonwealth Edison's Braidwood nuclear facility. In re Commonwealth Edison, Order and Certificate of Public Convenience and Necessity, Docket No. 58339, (Ill. Commerce Comm'n., March 27, 1974).

8/ Carlson, Freedman, and Scott, A Strategy for a Non-Nuclear Future, 21 Environment 6 (1979); In re Commonwealth Edison Co., Testimony of John C. Bukovski, Director of Economic Research, Commonwealth Edison Co., Docket No. 78-646 (Ill. Commerce Comm'n. 1978).

9/ Carlson, Freedman and Scott, supra note 7; interviews with regulatory officials and others concerned with the determination of need and technology choice issues in Illinois.

The ICC's statute governing certification of new units does not explicitly address the issues of the need for power and the choice of technology. The Commission, nonetheless, considers these issues in certification proceedings as a matter of administrative policy under its general authority. The Commission has promulgated no rules or regulations to explain either its policy or the need and choice issues, nor has it established procedures to govern their consideration in specific cases. Instead, the Commission with the evident support of the utilities, has chosen to operate in an ad hoc manner, responding to these and other concerns as they may be raised and developed in individual cases. In this regard, the staff of the Commission and intervenors play an important function. 10/

Recognizing the importance of these issues, however, the Commission has initiated several generic hearings related to the need-for-power. These are discussed below. 11/ Among the leading generic concerns is whether the state's utilities have overbuilt power-generating capacity and, if so, whether the ICC should direct the utilities to modify (delay) the schedules of several new plants now planned or under construction. All of these units, representing approximately 13,140 MW of additional capacity, were licensed by the ICC between 1971 and 1975. 12/

Increasingly, rate cases have become an alternative forum for need for power issues as utilities petition for investment-related rate relief. 13/ The utilities contend that they need large rate increases if they are to continue construction of new plants which in the long run will provide greater economic benefits to Illinois consumers. However, citizen groups fear utilities may overbuild by adding more capacity and equipment than necessary. Their position is that at a time of increasing costs for all factors of production ratepayers should not have to support capital investment beyond minimum needs. In this way, the question of overcapacity has become a leading source of controversy in Illinois, where reserve margins last year were 27 percent. 14/ In short, unlike California and various other

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10/ *Id.*

11/ *See* the discussion of generic proceedings under "Forecasting and Planning - The States role," *infra*.

12/ The following plants were licensed in the period 1970 to 1975:

Unit	Utility	Size	Docket#	Date
LaSalle	Commonwealth Edison	2200	56034	Aug. 1971
Newton	Central Ill. Pub. Serv. Co.	1150	57391	July 1972
Duck Creek	Central Ill. Light Co.	800*	57254	Aug. 1972
Collins	Commonwealth Edison	2700	57409	Oct. 1972
Byron	Commonwealth Edison	2240	57941	July 1973
Clinton	Ill. Power Co.	1850	57807	Nov. 1973
Braidwood	Commonwealth Edison	2200	58339	Mar. 1974

* One 400 MW plant is "authorized," a second 400 MW unit is now under construction.

13/ For example, Commonwealth Edison Co. expects to borrow $2.7 billion between 1979 and 1983. *In re* Commonwealth Edison Co., *Testimony of Hubert Nexon, Senior Vice-President, Commonwealth Edison Co.*, 5, Docket No. 78-9646 (Ill. Commerce Comm'n. 1979).

14/ 1979 operable reserve margins for some Illinois utilities were: Central Ill. Light Co.: 26.8%; Central Ill. Pub. Service Co.: 38.2%; Commonwealth Edison Co.: 29.8%; Illinois Power Co.: 27.2%. Telephone conversation with Mr. John Hasselbring of Illinois Commerce Commission, April 28, 1980, *citing* statistics from Mid-American Interpool Network.

states, the questions implied by the heading need-for-power have emerged as questions of consumerism rather than environmental protection. The Commission has not ruled on the issue directly. A small rate increase granted to Commonwealth Edison in September 1979 by an interim order led the utility to postpone construction of two units because of insufficient funds; in February 1980, however, the utility received a record increase, which may indicate the Commission's resolve that construction should go forward as planned. 15/

The overcapacity debate has produced a secondary matter of concern. Critics of the regulatory process have charged that because of excess capacity utilities and regulators alike lack enthusiasm for conservation programs and nongenerational alternatives to new plants. 16/ Cited as an example is a utility program intended to promote residential insulation which failed to produce much public response. Subsequently the utility was permitted to terminate the program with Commission approval. This issue is discussed below. 17/

Environmental requirements have proved to be an insignificant constraint on the choice of power generation technology and the siting of new facilities. In fact, the government promotes use of local high-sulphur western coal as a means of reducing pollution control costs. The loss of farmland to power plants is the one environmental issue with a tradition of political interest and public involvement. In a licensing proceeding in 1970-71 involving the LaSalle nuclear units, intervenors argued against the use of cooling ponds proposed by the company on the ground that cooling towers would consume less farmland. 18/ The ICC agreed with their underlying contention but deferred to the utility's judgment, observing that the company would compensate landowners for the acreage taken. 19/ (No party to the proceeding contested the utility's projections of demand growth or the basic choice of nuclear power.)

Almost unique among the major states, no additional power plants of any kind have been proposed in Illinois in recent years. The last licensing decision was the Braidwood nuclear plant in March 1974. 20/ This fact may help to explain the absence of strong interest for overhaul of the licensing process. A recent interagency review which was initiated by the Governor disputed the need for new legislation. In response to the argument in favor of a more activist agency, Commission members argue that they have a limited budget and analytical resources in comparison with other large states. At least where funding is concerned, however, this situation appears to be changing. Since the ICC's enabling legislation establishes a formula to finance its operations through a percentage assessment on utility operating revenues (which continue to rise), there would appear to be no monetary barrier to a more active ICC. 21/

15/ *In re* Commonwealth Edison Co., Docket No. 79-0214 (Ill. Commerce Comm'n., 1979). *See* discussion of forecasting in rate cases in "Planning and Forecasting - The State Role," *infra*.

16/ Interviews with regulatory officials and others concerned with the determination of need and technology choice in Illinois.

17/ *See* "Issues in the Licensing Process, 1: Utility Role in Conservation" *infra* in this chapter.

18/ *In re* Commonwealth Edison Co., *Order and Certificate of Public Convenience and Necessity*, 7-11, Docket No. 56034, (Ill. Commerce Comm'n., Aug. 13, 1971).

19/ *Id*.

20/ *In re* Commonwealth Edison Co., *Order and Certificate of Public Convenience and Necessity*, Docket No. 58339 (Ill. Commerce Comm'n., March 27, 1974).

21/ *See* 1978 Annual report on Utility and Carrier Regulation of the National Association of Regulatory Utility Commissioners 66 (1979).

The 1921 Public Utilities statute and procedures in Illinois continue to reflect pre-1973 attitudes, when electricity growth rates were rising at predictable seven percent per year. The addition of new units reduced overall utility rates, however. These conditions have changed dramatically which has been reflected in the generic hearings initiated by the ICC.

Still there is little evidence of demand for institutional change in Illinois. Meanwhile, utilities and regulators change in Illinois. Meanwhile, utilities and regulators strive to cope with the overbuilding that resulted from the earlier era. This allegation now arises regularly in rate hearings, where delaying construction to hold down costs has emerged as a divisive political issue. The Commission has responded by scheduling proceedings to investigate forecasting procedures and reliability criteria. 22/

5.2 Methodology

The research of the Committee regarding the Illinois regulatory system involved library research and interviews with representatives of the utility industry, relevant agencies and public interest groups, both in person and by telephone.

The research was uniformly useful in identifying problems and issues. The Illinois system will hereafter be examined in light of the varying viewpoints expressed.

5.3 Administrative Approach

The Illinois Commerce Commission is a five-member board appointed by the Governor and like its counterparts in other states, is responsible for regulating electric and other utilities in the state. 23/

The Commission's staff of approximately 250 employs approximately 60 professionals in the Public Utilities Division. In addition, the Policy Analysis and Research Division, created in 1977, reviews system-wide problems and provides an element of long-range planning. 24/ The Commission was appropriated $3.7 million for public utility operations in fiscal 1978, but spent only about $3.4 million. In fiscal 1979, it was appropriated $4.1 million. 25/

Two other state agencies also exercise energy policy functions bearing on utility operations. The Institute of Natural Resources, established in 1978, consolidates numerous scientific and research functions wihtin the Department of Business and Economic Development. 26/ The Institute represents the state in energy matters involving the Federal Government, including the administration of energy programs under federal law. 27/ For example, the Institute is responsible for implementing

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22/ In re Investigation of the Load Forecasting Procedures Utilized by the Six Major Electric Utilities in the State of Illinois, Docket No. 76-0569, (Ill. Commerce Comm'n., 1976); In re Investigation of the Procedures Utilized in the Determination of an Appropriate Level of Reliability for the Major Generating Utilities Within the State of Illinois, Docket No. 79-00070 (Ill. Commerce Comm'n., 1979).

23/ Public Utilities Act of 1921, art. I §8, 1921, Ill. Laws 702, 1933 Ill. Laws, 841, 1935 Ill. Laws 1093, 1951 Ill. Laws 1177, 1955 Ill. Laws 1242, 1967 Ill. Laws. 3382, (Ill. Rev. Stat. ch. 111-2/3, §8).

24/ Interviews with regulatory officials and others concerned with the determination of need and technology choice in Illinois.

25/ 1978 Annual report on Utility and Carrier Regulation of the National Association of Regulatory Utility Commissioners 66 (1979).

26/ An Act in Relation to Natural Resources, Research, Data Collection and Environmental Studies, P.A. 80-1218, §1 et. seq. (1978), (Ill. Rev. Stat. ch. 96-1/2, §7404 et. seq.).

27/ Id. at §3 (Ill. Rev. Stat. ch 96-1/2, §7403).

the residential conservation service program, which mandates utility audits of residential energy use. 28/ A state solar energy program is another of its responsibilities. 29/ Additionally, the Institute may intervene in ICC proceedings to raise policy issues while its scientific staff will, on request, advise the Commission on any technical questions within its expertise. Finally, the Institute evaluates and reports annually on the economic impact of Pollution Control Board rules and regulations, including their effect on the availability of adequate supplies of energy. 30/ These evaluations are subject to public hearings and comment and may include proposals for modifications in regulations. The Institute has approximately 75 professionals assigned to energy problems, most of them are in technical positions. Outside of the Commission, the Institute is probably the agency in the best position to propose new conservation and supply initiatives.

The Energy Resources Commission ("ERC") is another relatively new state agency created to address energy issues. 31/ The ERC is comprised of 18 members appointed by leaders of the house and senate, of whom 10 must be state legislators. It is required to assess the state's administrative structure for energy matters, to coordinate the programs of various state agencies, and to recommend a long-range program for energy resources. 32/ A recent interagency review of power plant siting (discussed below) was done under the ERC's auspices. Because of its membership, the ERC can provide important policy guidance, but it is not equipped to do the type of technical analyses undertaken by the ICC and the Institute.

5.4 Forecasting and Planning

5.4.1 The State Role

The Illinois Commerce Commission appears to view its primary function as the adjudication of specific cases involving specific utility proposals and requests, notably utility petitions for increased revenues or for certificates to construct power plants and related facilities. There is no statutory provision for the raising of issues, or the initiation of proceedings, other than by utilities (or the Commission *sua sponte*). As a result, whatever its potential capacity to plan future needs or to develop conservation and supply strategies, the Commission has declined to initiate such efforts. It has not directed its staff to prepare statewide, systemwide or similar forecasts of need either in generic-type proceedings or incident to utility petitions. Instead, the Commission follows an unwritten policy of reliance upon planning by the utilities which the Commissioners generally consider acceptable. Customarily, utilities submit ten-year forecasts when applying for the certification of new units, although no regulation requires them to do so. Since the state has yet to absorb the capacity approved in the early and mid-1970's, no new applications and no new ten-year plans have been filed. The ICC does, however, receive from the utilities revisions to load forecasts and capacity expansion plans.

28/ *Id.*

29/ The Comprehensive Solar Energy Act of 1977, P.A. 80-430 §1 *et. seq.* (1977), (Ill. Rev. Stat. ch. 96-1/2, §7301 *et. seq.*).

30/ An Act in Relation to Natural Resources, Research, Data Collection and Environ mental STudies, P.A. 80-1218 §4 (1978), (Ill. Rev. Stat. ch. 96 1/2, §7404).

31/ An Act Creating the Illinois Energy Resources Commission and Defining its Powers and Duties, P.A. 78-1125, §1 *et. seq.* (1978), (Ill. Rev. Stat. ch. 93, §301 *et seq.*).

32/ *Id.* §3, (Ill. Rev. Stat. ch. 93, 303, *et. seq.*).

The result is the public planning for future electric power needs is virtually nonexistent at the state level and private utility planning is essentially limited to the licensing of new facilities. Applications for these in the past have been filed near to the construction date because of the "two year rule" which requires that unless the company exercises its certificate within two years of its award, it may be voided. 33/

To a limited degree, rate cases have begun to fill this vacuum. In a number of cases, the affected utilities have sought increased revenues, in part, to compensate for the rising costs of constructing additional power plants previously approved by the Commission. The utilities' revenue needs have been complicated by reduced power consumption. 34/ In these proceedings, demand forecasts and construction plans have become controversial issues. Commonwealth Edison Company, in particular, has sought rate increases to finance six large nuclear generating units. 35/ These cost the utility $1.3 billion in 1979 with even larger outlays projected for 1980 and beyond. Without rate relief, Commonwealth Edison argued, its financial position would be so undermined as to preclude borrowing the necessary funds.

In September 1979, the Commission granted the Commonwealth Edison Co. an interim rate increase of 1.65%, an amount the Commission considered sufficient to support continued construction of the six units pending an investigation into the desirability of delaying some units as a cost saving measure. 36/ The ruling encouraged the utility to "meet the ratepayers partway by taking its own steps to improve its financial condition by cutting expenses." 37/ Edison did not appeal the order; instead, it chose to delay further construction to two units. Subsequently, the Commission ordered a 14.1% rate increase, or $390 million in additional revenues. 38/ Commonwealth Edison has since announced its intention to proceed with construction of the two units.

In 1979 the ICC initiated a separate investigation to assess Commonwealth Edison's overall power plant construction program. The investigation is proceeding in two phases independent of any rate proceedings. 39/ In the first stage, Commonwealth Edison's demand forecast and planning reserve margin are accepted *arguendo* so that similar issues can be resolved sooner. The hearings focus on the utility's methodology for calculating the present value of completing construction of four nuclear units as currently scheduled versus one or two year delays. 40/ According

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33/ Public Utilities Act of 1921, art. IV, §55, 1921 Ill. Laws 702, 1957 Ill. Laws 1175, 1965 Ill. Laws 1236, (Ill. Rev. Stat. ch. 111-2/3, §56; Interviews with regulatory officials and others concerned with the determination of need and technology choice in Illinois.

34/ *Id.*

35/ *See, In re* Commonwealth Edison Co., Docket No. 79-0214 (Ill. Commerce Comm'n., 1979).

36/ *Id.* in *Order on Petition for Interim Rate Increase* (Sept. 19, 1979).

37/ *Id.* at 7.

38/ *Id.* in *Final Order: Proposed General Increase in Electric Rates*, (Feb. 6, 1980).

39/ *In re* the Plant Construction Program of the Commonwealth Edison Co., Docket No. 78-0646 (Ill. Commerce Comm'n, 1978).

40/ *Id.*

to Edison's calculations, "no delay" provides a discounted savings of $281.6 million over a one-year delay, mainly with reduced fuel costs for nuclear units and tax benefits. 41/

Further delay results in proportionately higher costs under this analysis. The company's position, according to its chief executive officer, is based upon the view that "if we double nuclear (capacity) and reduce expenditures in our overall construction program, we believe there are brighter days ahead." 42/ The staff has as yet offered no independent assessment.

Hearings were suspended in 1979 and subsequently Edison reviewed its ten-year projected growth rate in peak demand downward form 4.5% to 4% per year. In 1980, the ICC sponsored a workshop to review Edison's projections which produced a consensus paper on assumptions to use in further studies together with a commitment by the Commission staff to perform its own review of "the increased revenue requirements for all years and all new generating plant and consequent fuel effects." 43/ Among the stipulated items was an agreement by Edison to assume growth rates of 4% and 2% and to study their effects on the possible delay of the two Braidwood nuclear facilities. Edison refused to consider a zero growth rate for purposes of study. In May, Edison submitted its study as testimony.

Edison stated that delaying "the Braidwood station would increase the cost ... in both present value and nondiscounted terms, as well as increasing overall systems operating costs." A two-year delay, the testimony stated, would cause a "revenue requirement penalty" of $698 million to customers which could subsequently rise to $1.363 billion, with the major portions of the increased construction cost consisting of "additional return on ... construction work in progress and escalation on deferred expenditures." 44/ Edison shortly announced voluntary delays in the three twin nuclear units under construction (LaSalle, Byron and Braidwood), with completion schedule "extended eight months to two years." The immediate effect, according to the announcement, was a projected $1 billion increase in the budget for the facilities (from $4.5 billion to 5.5 billion).

The second stage, which began on July 1, 1980, will look more broadly into the critical assumptions underlying the present value analysis. These include the utility's projected rate of demand growth and reserve margins. Commission representatives and other observers do not expect a decision that would affect current construction (already affected by rate orders), but this is one alternative being considered.

The high cost of the proposed Bryon and Braidwood nuclear generating stations are at the center of the controversy. Totaling about 4,000 MW of capacity, they would increase Commonwealth Edison's generating reserve by more than 12%, and further increase its reliance on nuclear plants, which already is at 40%. Determining whether to proceed or defer or cancel these units is the state's most significant energy supply planning issue, involving such factors as the assumed rate of growth in demand in the 1980's, the comparative benefits and costs suggested by different reserve margins, fuel mix patterns, conservation, and alternative techniques for

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41/ Edison employed a 7% rate of escalation for the fuel costs. Edison also argued that their estimate of savings was conservative because a high discount rate was used and no allowance was made for penalties resulting from delayed deliveries of nuclear fuel services. Testimony of John Bukovski, Director of Economic Research, Commonwealth Edison Company (Commerce Commission Docket No. 78-0646). However, the utility's calculation did make some dubious assumptions, such as exclusion of 1485 MW of "owned oil-fired combustion turbine peaking capacity" from reserve margin estimates. Also, only owned capacity was apparently considered, excluding other sources available to meet peak load requirements.

42/ Testimony of Bukovski at 9-11.

43/ Summary of the Conclusions of Workshop of February 28, 1980, Docket No. 78-06-6 (W.G. Kamphuis, Mar. 5, 1980).

44/ *Id.* at 2 and 3.

meeting consumer demand. Commonwealth Edison, for example, recently reduced it annual summer peak load growth rate from 4.5% to 4 over the next ten years only six months after dropping them from 5.1% to 4.5%. 45/ Still further reductions might be expected and achievable with an aggressive program of government and utility initiatives, such as time-of-day controls and pricing, together with consumer responses to higher rates in general. 46/ Alternatively, Illinois consumers may be better off with higher than planned reserve margins, if new units sufficiently reduce overall costs, or serve other public goals, such as oil displacement. In the absence of an inquiry into the utility's load forecasts and alternative expansion plans in the phase one hearings, however, the value of the second phase -- not to mention the credibility of the first -- is by no means self-evident. In any event, these generic hearings seem to concentrate public attention on the importance of resolving these and similar "need" questions in defined, advance proceedings, rather than through the traditional medium of an *ad hoc*, after-the-fact forum at a later time when few attractive options remain open.

These hearings also must be viewed in conjunction with an inquiry, begun in 1976, into the various forecasting techniques employed by the state. Although the Commission retained consultants and conducted informal workshops with utility representatives to assess the state of the art and the prospects for a common forecasting methodology, the investigation was at least temporarily delayed by a change in Commission staff. The prospects for drafting findings and otherwise bringing the docket to a close remain in doubt.

The Commission has begun another generic proceeding concerning reliability issues which is also in an early stage. 47/ Initially it will review existing procedures for determining adequate levels of reliability, including reserve margins. As in the forecasting proceeding, the objective is modest: define terms and summarize the state-of-the-art. ICC Staff indicate that a consensus paper will be prepared to summarize conclusions, but they do not expect to recommend an order. Following this proceeding, the Commission plans another generic inquiry to determine alternative means of achieving reliability levels, such as investment in new generating capacity, size and type of facility, and utility interchanges. This proceeding may be affected by the federal study on reliability issues currently in progress as required by PURPA.

Despite the existence of these recent generic proceedings, there appeared to be no sentiment among either the utility or Commission representatives for the state to perform its own independent forecasts of demand or to adopt a common methodology to be employed by utilities. The utilities oppose the adoption of a common methodology because of uncertainty regarding forecasting techniques and the variety of circumstances facing Illinois utilities. The Commerce Commission bases its opposition to forecasting more on historical considerations. The Illinois Commission has traditionally viewed its role in planning as a very limited one, notwithstanding the recent generic initiatives described above. With a relatively small professional staff, the Commission believes that directing the staff to perform its own "yardstick" forecasting would require expensive consultants, highly trained professionals, and attendant support services. Commission observers consider legislative support for such a staff increase unlikely, in spite of steadily rising revenues provided by utility assessments and the recent increases in legislative appropriations. More

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45/ Commonwealth Edison Co. 1979-1988 Peak Load Forecasts, Chapter VII (1979).

46/ *See* the discussion of utility forecasting in "Forecasting and Planning - the Utility Role" *infra* in this chapter.

47/ *In re* Investigation of the Procedures Utilized in the Determination of an Appropriate Level of Reliability for the Major Generating Utilities within the State of Illinois, Docket No. 79-0070 (Ill. Commerce Comm'n., 1979).

fundamentally, the Commission questions the benefits of an expanded role. For example, the Commissioners and some staff take the position that the state need not perform its own analysis of load growth since it can achieve equally good results by reviewing in depth the utilities' projections.

Question may be raised as to this position by the several generic investigatory dockets opened by the Commission since 1976. These "orders of inquiry" signal a recognition on the part of the Commission that certain major questions related to the expansion of utility generating capacity are recurrent and systemwide (including load forecasting, need for additional power, and size and type of technology). Accordingly, the Commission has designated them proper subjects to consider and implicitly to decide in generic proceedings. By assuming jurisdiction over a broad range of generic planning factors, the Commission has already embarked upon a public planning process based upon its general regulatory powers and without explicit legislative guidance.

The Commission is mindful of the awkward dual role of the Commission staff in these proceedings. The staff act as technical advisors to Commission members with the opportunity for ex parte discussions; they may also advocate positions on behalf of the staff as a party during both certification and generic hearings. Whether this practice violates the Illinois administrative procedure act is a matter of concern. 48/

5.4.2 The Utility Role

Utility forecasting practices in the state vary widely, as might be expected given the utilities' diversity in size and service characteristics and the lack of ICC direction. As the state's largest utility, Commonwealth Edison's forecasting is generally considered the most sophisticated. For example, Edison employs a multiple model approach, which it refines with a review committee comprised of 13 senior management members representing different persepectives within the utility. In addition, Edison often retains consultants to critique its methods. As a general rule, Edison determines high and low projections by adding to and subtracting from the ten-year forecast the projected growth for one year. For 1979-1988 Commonwealth Edison projects annual peak load growth of 4.5%, a high growth of 5.0%, and a low growth of 4.0%. These numbers are used for supplying planning purposes as in the financial calculations discussed above.

All of Edison's models are variations of econometric techniques which necessarily cannot estimate the effect of changing relationships which have no historical precedent. 49/ In the late 1960's and early 1970's the utility substantially overestimated demand growth, resulting in the current situation of at least short-term overcapacity. Time-of-use pricing, mandatory conservation and other government policies are current uncertainties that could have a significant effect on future demand growth. The company is therefore investigating end-use models better suited to predicting the impact of such developments.

Commonwealth Edison has made rough estimates of the potential demand reduction from a variety of sources. The extent to which time-of-use pricing might dampen demand is considered too uncertain by Edison to draw any conclusions although it is an issue to "be watched carefully . . . ." No credit is given to such measures in current supply plans. Customer-owned demand controls for large electricity users were assessed as capable of reducing the 1978 peak up to 75 MW. Industrial fuel conversion from gas to electricity was another significant variable. Estimates for 1986

48/ Administrative Review Act, 1945 Ill. Laws 1144, 1959 Ill. Laws 783, 1961 Ill. Laws 1911, 1963 Ill. Laws 2687, amended by P.A. 77-1277 (1971), (Ill. Rev. Stat. ch. 110 §264).

49/ Interviews with regulatory officials and others concerned with the determination of need and technology choice in Illinois.

ranged from 110 MW to 1100 MW. Cogeneration was evaluated by a separate task force as amounting to no more than 50 MW by 1985, but a newer and higher estimate is expected soon. Efficiency standards for appliances were projected to reduce 1988 peak demand by as much as 735 MW, mostly from improvements in air conditioners. Wind and solar power and electric vehicles were examined but dismissed as unlikely to have measurable market penetration by 1988 and even more unlikely to affect peak demand due to their time of use. 50/

5.5 Power Plant Licensing: Need for Power and Choice of Technology

Under state law Illinois utilities must obtain a certificate of convenience and necessity from the ICC before beginning "the construction of any new plant, equipment, property or facility" not in substitution for existing facilities. 51/ The statute's sole procedural requirement is that a hearing precede the licensing of new power plants. The Commission has interpreted this as requiring a public adjudicatory hearing.

The statute further provides that the certificate be exercised within two years, a provision which the utilities interpret to mean that construction must begin with that time. 52/ (Some observers assert that utilities have relied upon this "two-year rule" to delay applying for a certificate until construction plans are well formulated.) The Commission staff disagree with this interpretation on the grounds that it may prejudice the certification proceeding, but they have not requested an order or regulation implementing their view. However, if the statutory language is read narrowly, the Commission presumably can avoid the problem by using its general supervisory powers to require advance notice of construction plans and other disclosure. It could also review utilities' load forecasts and expansion plans prior to the formal Application for Certification. In fact, the several generic dockets discussed previously would appear to have that purpose.

There is also disagreement over whether a certificate supports unlimited facilities on a site or only the unit(s) proposed. The Commission has not promulgated regulations establishing more detailed procedures on these or any other points. 53/

The LaSalle County Station proceeding is often mentioned as the most hotly contested licensing application, and therefore the best evidence of how the system actually operates in practice. 54/ In that case Commonwealth Edison applied for

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50/ Commonwealth Edison Co., 1979-88 Peak Load Forecasts, II-27-28 (1979).

51/ Public Utilities Act of 1921, art. IV, §55, 1921 Ill. Laws 702, 1957 Ill. Laws 1175, 1965 Ill. Laws 1236, (Ill. Rev. Stat. ch. 111-2/3, §56).

52/ *Id.* ("Unless exercised within a period of two years from the grant thereof, authority conferred by a certificate of convenience and necessity issued by the Commission shall be null and void.")

53/ Apparently Commerce Commission regulations permit additions to a site once construction of a single unit has been licensed. Central Illinois Light Company, for example, received a certificate of public convenience and necessity for a 400 MW unit at the Duck Creek site in 1972. A second unit is now under construction and others are planned. Telephone conversation with John Hasselbring, April 28, 1978; *See, In re Central Illinois Light Co.*, Order and Certificate of Convenience and Necessity, Docket No. 57254, (Ill. Commerce Comm'n., Aug. 2, 1972).

54/ *In re Commonwealth Edison Co., Order and Certificate of Public Convenience and Necessity*, Docket No. 56034, (Ill. Commerce Comm'n., Aug. 13, 1979).

authority to construct and operate two 1100 MW nuclear fuel generating units, with cooling capacity for two more 1500 MW units, on a site in North Central Illinois. Its application, filed on October 5, 1970, was approved ten months later on August 13, 1971, after approximately 30 hearings and oral arguments before the full Commission. The principal contested issue was the choice of location, not the need for power, with the choice of technology for cooling an important corollary issue. The intervenors objected to the utility's proposal to flood approximately 7,000 acres of prime agricultural land for use as a cooling pond. One intervenor group argued for cooling towers instead. 55/ The Commission considered this issue at length but concluded that the cooling lake was reasonable, largely on the ground that the utility would compensate landowners for any farm land taken. The Commission noted also that the county would benefit from increased tax revenues. 56/

Need for power and choice of technology were apparently not seriously contested issues in the LaSalle County proceedings. They are discussed in only one page of the Commission's twenty-two page decision. The Commission noted but did not evaluate the utility's claim that nuclear power was chosen because of environmental and economic benefits over fossil fuels. Need for power was addressed in a quotation from utility testimony:

> [W]ithout the addition of new generating facilities of the magnitude of those proposed herein, the capacity of the Edison system . . . will be inadequate to meet the estimated peak demands and maintain a reserve margin of generating capacity above those demands that will enable Edison to provide safe, adequate, and reliable service. 57/

Agency representatives indicated during interviews that staff members reviewed these assertions in detail prior to the hearing, but the issue was not litigated and there is no formal record.

5.6 Public Participation

The Illinois agency most responsible for promoting public participation in ICC proceedings is the Office of Consumer Services ("OCS") in the Governor's Office of Interagency Cooperation. OCS was formed in 1977 using federal funds provided by Section 205 grants for offices of consumer services. 58/ According to the agency

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55/ Id. at 10.

56/ Contribution to local tax revenues, while often listed by reviewing agencies as a "benefit" favoring the approval of a proposed facility appears to have limited relevance to a comparison between potential sites for the facilities under consideration. Most states have developed statewide taxation formulas to equalize the rate of taxation for new electric utility facilities regardless of location. See, e.g., N. Beer, The Gross Receipts and Franchise Tax and the Public Utility Industry, Feb. 25, 1980 (Unpublished Paper at Woodrow Wilson School at Princeton University).

57/ Id. at 3-4.

58/ Section 205 of the Energy Conservation and Production Act ("ECPA") as amended by the Public Utilities Regulatory Policies Act ("PURPA") provides money for states to implement offices of consumer services. 42 U.S.C. §§6805, 6807.

director, OCS provides technical support to "consumer groups":

> [T]he office provides a supportive role, providing technical expertise and direction as requested with[in] the contest of citizen participation in a utility regulatory proceeding. This in turn offers the utility user group an opportunity to make informed decisions about their preconceived point of view on a pending regulatory issue. It also offers a viable means to working with the regulatory process and to effectively represent their point of view supported by the factual information required for decision-making in this quasi-judicial regulatory setting. 59/

The OCS has also identified more than 70 consumer advocacy groups in the state.

Although the state does not provide funding to intervenors, the Office of Consumer Services assists them with substantial legal and technical expertise, including expert witnesses. The office has also appeared in rate hearings on behalf of citizen groups, in effect functioning as a public interest organization for specific cases.

In any future power plant proposals, if the public turnout at recent rate hearings is a barometer, a high level of public interest should exist -- though the substantive and procedural response to that interest is far from clear. Several consumer and environmental groups participated in the recent proceeding on Commonwealth Edison's construction program. 60/ Commerce Commission officials expect that public interest in any power plant application would be great, especially if nuclear energy is the proposed technology.

5.7 Issues in the Licensing Process

5.7.1 Utility Role in Conservation

There has thus far been little support for using utilities to provide energy conservation services or to invest in renewable energy services. Commonwealth Edison offered an insulation program for residential customers but in December 1979 it received permission from the Commission to drop the program for lack of response, despite contentions by intervenors that the project failed for lack of promotion. 61/ Reportedly, the experience has been the same for other electric utilities. For unexplained reasons, gas utilities have reportedly had better results. Edison does not expect residential insulation to affect peak demand and consequently its construction plans, because the state has few electrically heated buildings with poor insulation; most homes have oil or gas heat. New buildings, Edison claims, are being well-insulated without financial support. Edison is also summer peaking and sees insulation as having limited potential to reduce the chief cause of summer peaks, air conditioning. Other sources suggest that because Edison has substantial capacity in excess of necessary reserve margins, it has less financial incentive to seek conservation opportunities, even though individual consumers may benefit. There is also some indication of a "whipsaw"; consumers note that utilities have sought rate increase on the ground of reduced demand and resulting lower revenues. They complain that the Commission is thus permitting consumers to be penalized for attempting to carry out national energy policy. None of the relevant state authorities is currently considering orders directing the utilities to adopt conservation programs, apart from the audit program mandated by federal law. 62/

59/ A Grandys, The Emerging Role of the Consumer Advocate as an Institution, 1979, Summary of Proceedings State Utility Consumer Advocates Conference. 125, 130 (1979).

60/ In re Investigation of the Plant Construction Program of the Commonwealth Edison Co., Order, Appendix A, Docket No. 78-0646 (Ill. Commerce Comm'n, December 27, 1978).

61/ Interviews with regulatory officials and others concerned with the determination of need and technology choice in Illinois.

62/ National Energy Conservation Policy Act, §§213, 215, 42 U.S.C. §§8214, 8215.

5.7.2 Power Pooling and Regionalism

Increased pooling within the state has not been an issue, but it may be addressed in the pending generic reliability hearings. 63/ The benefits of interstate planning and sharing of capacity with other states has not been an issue, although a few Illinois utilities participate in such activities. The predominant view at the ICC appears to be that the utilities are dealing with the issue adequately, although some staff representatives feel more attention to regional planning is needed. The staff view was that in hearings involving plants serving more than one state, representatives of the affected state would be welcome to appear in Illinois proceedings.

Commonwealth Edison has indicated its willingness to sell excess power as a way to reduce the costs of overcapacity, a posture expected to continue for at least several years. However, during the generic construction investigation Edison has expressed its reluctance to sell unit power from its nuclear plants under construction, "since the energy costs from these units will be among the lowest on our system" which would deprive its customers from the benefits of building such units. 64/

5.7.3 Environmental Constraints

Environmental constraints have not been nearly as much an issue in Illinois as in many other states. A state official suggested there is a common perception that the natural environment in Illinois was essentially destroyed when farmers arrived in the 19th century. Others feel that Illinois' lack of an ocean coastline and the absence in Illinois of the unique land areas present in California explains some of the differences in the attention to power plant issues in the two states. However, Commonwealth Edison does see approaching pollution limits to construction of new coal units. The utility believes that about 2000 MW of additional coal could be burned in its service area consistent with Clean Air Act requirements. Some observers also feel that public interest in environmental issues is increasing. This is particularly evident in the areas of nuclear power and preservation of farmland.

The source of coal used by utilities is a significant political issue because coal mining employs 14,000 people in Illinois. 65/ The utilities argue that lower sulphur western coal can be burned at less cost, despite transportation costs, because air pollution standards can be met more easily. The Commission has stated that it does not have the authority to force utilities to continue using in-state sources of coal. 66/

5.7.4 Oil Displacement

Since relatively little oil is used to generate electricity in Illinois, federal requirements and pending proposals to reduce oil consumption are not a significant issue. However, the importance of oil use reduction has been raised as an argument

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63/ Interviews with regulatory officials and others concerned with the determination of need and technology choice in Illinois.

64/ *Id*.

65/ *Id*.

66/ This issue exists in several other eastern states. A tax on coal which decreased with sulphur content was passed in Ohio to promote use of high-sulphur Ohio coal. A federal district court invalidated the law for violating the interstate commerce clause. *Mapco, Inc. v. Grunder*, 470 F. Supp. 401 (N.D. Ohio 1979). A recent Pennsylvania proposal would give those planning to use Pennsylvania coal expedited state permit review. *Energy User News*, Jan. 28, 1980, p. 19, and March 3, 1980, p. 18.

for expeditiously completing nuclear plants now under construction. Excess power from these plants could then be sold to other states (Illinois is well interconnected) facing oil cutbacks. In this regard it should be noted that Edison, which has the most nuclear units, is reluctant to sell power from the nuclear plants. The state would then become an electricity exporter. The response of regulators to this proposition is considerable skepticism. They see their responsibility as first and foremost to hold down the cost of service for Illinois customers; benefits to the nation, they feel, should be paid for by the Federal Government. Commonwealth Edison representatives express a similar viewpoint insofar as they doubt that the utility would or should act contrary to its economic interest without legislative direction.

5.8 Prospects for Legislative Change

Substantial revisions of the Illinois law have been proposed many times. The desirability and necessity of changes were recently reevaluated by a Task Force on Power Plant Siting formed in November 1977 under the Illinois Energy Resources Commission ("ERC"). 67/ The Task Force was formed by the ERC chairman and included representatives of utilities and the public as well as the legislature and the affected agencies. At the outset, task force members concurred that "the past and present performance of power plant siting in Illinois was relatively good; [that] there is always potential for improvement; and [that] it would be worthwhile for the task force to investigate what type of draft legislation could be evolved . . . ." 68/

Draft legislation was prepared providing for a new agency, the Electric Generating Facilities Siting Council, to be formed out of the ICC, the Illinois Environmental Protection Agency, and the Institute of Natural Resources. The council would coordinate, rather than supersede, existing agencies. It would hold coordinated hearings, but decision-making would rest with the same authorities. Local zoning would continue to apply, except that changes that could "prohibit" an approved facility would not be tolerated. 69/ The proposal also provided for early site review to resolve environmental impacts within statutory deadlines. This could produce the "banking" of approved sites for expeditious approval once a "necessity" for power was shown. Site review would be limited to 980 days of which 540 days are allotted to the utility to develop information. An additional 1160 days would be allowed for construction authorization review, although it is expected this period could be reduced if early site approval is obtained.

At a meeting on March 27, 1979, however, the task force concluded that "there is no immediate need for power plant siting legislation and that the evolved draft of legislation would not enhance the current siting process." No further explanation was reported, but the tone of the final report suggests general satisfaction with the current system. Therefore, the task force recommended against introducing its own proposed legislation. However, there continues to be interest in some effort to coordinate agencies involved in reviewing power plants and possibly to hold simultaneous hearings. Changes along these lines might be implemented through executive order.

One staff official expressed the view that legislation lacks the necessary public support. While there are constituencies concerned with specific aspects of power plant licensing, such as the loss of farmland and the disposal of radioactive waste, there is no strong interest in comprehensive procedural reform in the absence of a controversy of statewide proportions. Such legislation is therefore unlikely unless the Governor makes this a major concern or a coalition of groups is formed, all of whom stand to gain in some way from adoption of a new system.

67/ Memorandum from Tor D. Kolflat, Chairman Electric Utilities Task Force, to Representative Daniel Pierce, Chairman, Energy Resources Commission (April 23, 1979).

68/ *Id.*

69/ *Id.*

5.9 Conclusions

Any reviewer of the Illinois system for determining the need for power and the choice of technology must confront a number of special problems. First, the state has not formally considered a petition for a new power plant of any kind since 1975, when it approved the Braidwood and Byron nuclear units. These decisions followed a flurry of licensing activity in the early 1970's when over 13,140 MW of capacity were approved with only perfunctory consideration of future power needs and the relative benefits of various generating technologies. 70/ As a result, the State of Illinois has escaped the controversial power plant licensing and siting cases that have played crucial roles in the development of new laws and procedures in several other states. Thus, a 1980 inquiry into these issues tends to be somewhat hypothetical and remote.

A second problem confronting the reviewer stems from the environmental perspective of the state. Predominantly flat, with few large cities and a large amount of agricultural lands, Illinois presents the licensing process with few of the hard choices faced by various other states between the generation of power and the preservation of unique vistas, coastline or recreation areas. As a result environmental issues and trade-offs are not large issues.

The ICC recently, however, has had to face a series of issues that flow directly from its earlier decisions to certify large increases in capacity (especially for Commonwealth Edison), followed by the now well-documented downturn in rates of energy consumption. As the utilities seek revenues to compensate for reduced growth as well as higher than predicted construction costs, ratepayers have faced a series of rate increases, which in turn has led to still further reductions in consumption patterns, the postponing of construction, further cost escalation followed by still further rate increases, and a repetition of the cycle. In short, through a round of rate cases, the Commission has been drawn into a gradual reevaluation of its prior decisions to certify these as yet incomplete power plants, notably the Byron, Braidwood and Clinton nuclear units. It has not moved to revoke or even to formally reconsider these prior decisions. With these highly contested rate proceedings it has opened a series of "generic dockets" to assess many of the underlying issues critical to both the completion of these units and the rate increases to pay for them. These generic hearings also may prove vital to decisions on other facilities and alternatives in the future. Among the open issues are generic determinations on load forecasting, the use of common forecasting techniques, utility construction programs, delaying versus completing individual units, peak load pricing, and the overall reliability of service, including the size and type of generating facilities and "planning reserve margins."

The conclusion that emerges from a review of these generic proceedings is that the ICC has gradually and without statutory mandate developed a form of public planning process.

It is also apparent that the Commission has acted without any stated plan of operations of its own to coordinate its generic proceedings, complete them in a timely manner and apply the results to the rate cases where questions of need for power are increasingly becoming basic issues.

Lacking statutory direction the Commission shows no clear sense of purpose, priority or timing in their management. Some, for example, began in the fall of 1976 (load forecasting, peak load pricing, etc.) shortly after the licensing of the last units, and still "continue" some four years later. Others run the risk of producing no decision until long after resources have been committed to facilities now instages of active planning. Moreover, the Commission has allocated very few personnel and resources to these issues and, even though its appropriations continue to rise steadily (as a percentage of utility operating revenues), it has returned large fractions of its appropriations to the state (e.g., $300,000 or almost 10% of the amount spent in 1978). Thus, it would appear that the Commission possesses the basic capacity to follow through on its generic proceedings, but is reluctant to do so. The Commission has, however, identified a number of generic problems and has established a reasonable process for their evaluation and eventual decision.

70/ See note 11 supra.

Illinois' regulatory structure has much in common with states which have radically modified their licensing procedures and policies in recent years. Operating under a 1921 statute, the ICC has attempted to respond to problems as they arise with procedures developed for generic evaluations, while retaining the classic adjudicatory mold. If the legislature or, as appears more likely, the Commissioners, decide to bring a greater order of direction to the generic proceedings, there is reason to believe that they can contribute substantially to the solution of the state's more pressing power supply problems: high rates of capacity, recurrent rate increases and a supply planning function.

Chapter 6.0 Recommendations

6.1 Overview

A number of insights can be drawn from comparing and analyzing the similarities and differences of the Illinois and California systems. Despite their many apparent differences, those regulatory frameworks nonetheless display important commonalities of approach and several of the same fundamental goals and assumptions. Their differences, stemming from a variety of circumstances ranging from environmental to economic and from demographic to historical, serve at once to yield valuable bases for comparing the effects of disparate regulatory modes and to caution against attempts to restrict energy decision-making into a rigid framework. The 50 states offer many opportunities for diversification. Each can learn from the experience of others; each must also guard against the unexamined application of others' methods to circumstances which inevitably differ.

However, some generalizations are possible. Below, five specific recommendations are offered. The recommendations are deliberately broad in scope, leaving much room for diversity and experimentation. No particular substantive results are advocated. There was a consensus in the Special Committee that the recommendations could help to overcome some of the most prevalent and serious flaws of present energy decision-making.

The recommendations which follow speak to these concerns. Their implementation must take into account the special characteristics, limitations, and historical perspectives of each of the 50 states. Each state can and should decide its own energy future in a manner acceptable to its citizens and consonant with regional and national considerations.

If followed, these recommendations would change this status quo in several important ways. First, the utilities would open important facets of their decision-making process, such as the collection of information, to public view. Secondly, states would assume the function of both planner and decision-maker under a reasonably centralized authority. Thirdly, the public would exert responsible influence with the utilities and the state through early and informal participation and consultation. Our proposals find support in the experience of New York, Minnesota, Wisconsin, Oregon, California, and others.

The recommendations contemplate a state agency undertaking a generic assessment of electric power needs with public participation which would include a consideration of alternative levels of consumption, methods of meeting demand, and the associated environmental costs and benefits. The state would then adopt a forecast or plan to guide utilities, other units of state government, and the public in the certification of the individual facilities necessary to meet projected needs. The plan would indicate when new capacity would be required in light of the plan's conservation goals and would also indicate which types of generation technology would be permitted or encouraged. Certification of individual generation facilities would be based upon a determination that (1) the applicant's proposal reasonably conforms to the plans, and (2) issues relating to the site or chosen technology have been adequately resolved. Thus, generic issues demanding policy and value judgments would be decided at an advance planning stage. The subsequent facility certification phase would address those variable issues of specific sites, facilities, and fuel types.

6.2 Generic Determinations

It is recommended that, to the greatest extent feasible, an appropriate agency of state government should determine the need for power and choice of technology in regular ("generic") proceedings. This determination should provide the

the opportunity for meaningful public participation and should be binding on subsequent certification proceedings. The same agency should prepare forecasts and issue certificates of convenience and necessity based upon these forecasts.

State agencies should address basic policy issues, such as the need for power and the choice of technology, in proceedings independent of specific siting hearings.

In the traditional licensing procedure still used in the majority of states' questions of the need for power, conservation, technological alternatives, demand, site suitability, and environmental acceptability are determined concurrently only when a utility applies for a certificate of convenience and necessity. This has resulted in proceedings which combine the resolution of major policy issues, such as nuclear power, the potential for conservation, and decentralized generation of power together with issues of local concern, such as land use policy. The potential impacts of these various policy controversies often span several states and even national boundaries. Because determination of these questions requires subjective and political judgments, they typically provoke great public interest and controversy. Moreover, the procedures used to determine land use and environmental issues, which are often adjudicative, trial-type hearings before a hearing officer, are ill-suited for policy judgments. By determining future supply and demand patterns in an early generic proceeding, instead of adjudicating the acceptability of a utility's forecast during a certification hearing, states can provide a reliable framework for judging proposals to construct new power plants.

The issues to be addressed in the generic proceeding will vary from state to state. The following questions will, however, be normally appropriate for generic resolution:

1. What facilities and initiatives, in comparison to alternatives, are needed to substitute for energy otherwise provided by the burning of oil or natural gas and necessary to conform to Federal standards?

2. What facilities and initiatives, in comparison with alternatives, are needed to replace existing units that are or should be scheduled for retirement due to inefficiency, fuel type, unreliability, or high pollution cost of continued operation?

3. What facilities and initiatives, in comparison with alternatives, are needed to meet planning reserve margins and levels of system reliability?

4. What technologies or methods for conserving or producing energy can be expected to become commercially feasible within a reasonable planning period? Are there others which cannot become available without changes in public policies? If so, what are those policy changes and which ones require legislative action?

In addition, the generic planning process would examine not only the expected results under different sets of assumptions, such as the price of fuels and the future availability of natural gas as a traditional fuel source, but would also identify actions ripe for legislative and regulatory consideration to bring about preferred outcomes. Thus, the generic plan would go beyond a simple load forecast which normally projects growth rates based upon probability and alternatively identify the steps necessary to optimize the state's energy future. It might consider the need to mandate certain conservation improvements such as the City of Portland has recently adopted.

In order to succeed, the proposed system requires two additional elements. First, there must be substantial opportunity for public involvement, and, secondly, there must be legal assurances that the determinations reached in the generic proceeding will be binding on later stages.

Under the existing system, many states have developed useful approaches to assist public advocacy which should continue. These include legislation to provide for publicly-financed public advisers, consumer counsel, and other steps designed to promote effective public participation. Similarly, many states rely on the staffs of their public service commissions to present the viewpoints and perspectives of consumers. These and other devices to improve the quality of public involvement merit further consideration.

The generic proceeding must also meet standards of definiteness and finality such that the framework created will allow a large measure of legal reliance during the certification stage. Utilities and citizens alike must be assured a substantial degree of regulatory certainty.

An abstract plan will neither engage public attention nor provide solid ground rules for certification decisions. This problem can be addressed if state planners develop workable baseline information. The plan should also fully describe and quantify the environmental, social, and economic impacts of alternative approaches to meeting the forecasted need.

Without some advance generic proceeding, the public can become involved only after the utility has invested considerable funds and its plans have become final. A policy that treats inquisitive, concerned citizens more as potential partners rather than adversaries could reduce friction, educate the citizenry, and, in the long run, avoid delays and increased costs. The generic plan must present the policy issues as specifically as possible so that possible tradeoffs and options can be explored publicly.

One way to assure flexibility would be to repeat the process regularly, mandating reconsideration and reevaluation at least once every three years in order to take account of changing conditions, policies, and information. Thus, while an advance plan could encompass a meaningful forecasted period (such as 5, 10, or 20 years hence), it would be reevaluated at regular intervals and would therefore be valid only until the next plan emerges. This assures the public of a continuing planning process punctuated with interim decisions designed to guide decision-makers, utilities, and public participants until the next plan.

6.3 Certification of Facilities

To complement the open public planning process, there should be some assurance that states require a fair, timely, and dispositive certification process to judge the conformity of proposed new facilities with the adopted advance plan. The certification process should be structured so as to provide the participants with specific regulations, procedures, and standards to govern the substantive determinations and should be governed by the most recent planning determinations.

Certification should precede a utility's financial commitment to a particular site and technology in order to assure an impartial consideration. The process should not be available to raise matters already considered and determined during the open planning process, in the absence of a showing of materially-changed circumstances.

The certification step should come as close as possible to achieving the goal of providing a single decisional forum for all relevant issues. This arrangement does not necessarily mean, however, that the decision-makers should have complete discretion to relax state or local environmental standards. It does, however, suggest that where certification will meet the dictates of the advance plan, including a generic finding of need, and where there can be no feasible and prudent alternatives which do not impose the same or equal cost, the proper course is to grant the certificate.

As noted earlier, several states have moved to institute comprehensive energy facility siting boards, encompassing all manner of energy facilities, to review the need for proposed facilities, the choice of fuels and the environmental compatibility of the chosen site, and to compare utility proposals to alternatives. These boards or councils range from three-member ad hoc bodies to part-time, volunteer, and full-time professional units of up to 15 members. It is the sense of the Committee that the decision-making group should be large enough to prevent dominance by a particular interest or predisposition, and should have a mix of backgrounds, professions, expertise, and perspectives.

6.4 Nontraditional Energy Options

To assure that energy conservation and less traditional sources of power receive adequate consideration, the responsibility for assessing and promoting these options should be vested in the same authority which plans and certifies new construction. Alternatively, this responsibility could be vested in a parallel state agency whose findings would be binding on the planning and certification authority.

The generic plan should include a broadened forecast which attempts to incorporate the effects of changes in public policy or other significant developments upon future demand. For example, the conservation authority might determine that it is more economical for utilities to finance residential insulation at little or no interest rates than to construct new power facilities.

As part of the planning process, the agency would assess the commercial availability of energy-related technologies and identify those institutional and financial barriers which might hinder their widespread use. This requirement is one of the most innovative in the California scheme for the assessment of future energy demand and supply. The California Energy Commission's 1979 Biennial Report describes the likely new additions to utility capacity only after assessing the various options to reduce demand and otherwise eliminate waste, including changes in government policy and utility marketing practices.

Traditionally, the approval of power plants has been viewed as the only means of meeting energy needs available to the decision-making authority. If the plant does not come on-line as expected or operate properly, the agency has some mechanism for oversight and limited powers to influence the utility through rate review.

6.5 Regional Concerns

States should continue to experiment with ways to identify and incorporate multistate, regional, and national concerns in their planning for energy needs and in the construction of electric power facilities.

The states should open a dialogue with their potentially affected neighbors in order to assure harmony and the meeting of national energy objectives at minimum cost to the integrity of Federalism. At the same time, absent strong Federal pressure, individual states will be reluctant to assume substantial burdens solely to provide electricity to other states and appropriate regional institutions to deal with need-for-power considerations on a multistate basis are not likely to evolve. If the states are unable to meet this challenge, an increased Federal role in need-for-power determinations may result.

While power plant certification is traditionally a state function, facilities are frequently being built to serve customers in more than one state thereby further complicating an already difficult decision. This issue was discussed in the recent Ford Foundation study, Energy: The Next Twenty Years:

> (S)tates may not always be in the best position to make responsible judgments as to the need for power. Electric power generated by a particular plant is often sold in more than one state, and even where it is not, it may displace power imported from outside the state. Indeed, there is something incongruous about determining the need for power, which, because of interconnections, involves a regional and even increasingly national market in the context of local siting decisions. The mechanisms for regional determination of the need for power either do not exist or are of questionable efficiency.

In the West, several states, such as Wyoming, export power to states which do not have indigenous sources of coal and clean air. A major controversy is developing over California's access to lower-cost hydroelectric power produced by the Bonneville Power Authority in the states of Washington and Oregon, which the California Energy Commission would use to displace oil. Indeed, California is becoming increasingly dependent on power obtained from coal-fired and nuclear plants located in Arizona and Utah. How much longer these states will be willing or able to supply California's needs is uncertain.

In the East, regional planning has a solid tradition, no doubt due to the smaller size of states and the need for jointly-financed projects. Additionally, the New England and Mid-Atlantic states have well-established systems of power pooling and cooperative investment in major facilities due to perceived economics of scale coupled with scarce sites and capital. While authorities differ as to the optimum size of an integrated system, among smaller states, cooperation is clearly beneficial. Similarly, Bonneville and some utilities in the northwest have sold power to California during its summer peak in return for power at other times of the year, an arrangement economically beneficial to both parties.

Accordingly, even in the absence of formalized regional institutions (such as interstate compacts common in the allocation of water resources), many utilities, states, and authorities already incorporate a large measure of regional cooperation in the planning and operation of energy facilities. This trend is further reflected in the many "regional reliability councils," power pools, centralized load dispatching (which operates on a "single company concept"), and dependable patterns of dealing between utilities as far apart as TVA and northern New Jersey. In short, there is much reason for optimism with respect to the capacity of individual states to adequately deal with the task of meeting multistate power needs. Nonetheless, state parochialism has been a serious problem in recent years. The following examples illustrate the potential hazards of relying solely on individual states' planning and implementation:

(1) The Public Service Commission of Wisconsin ruled that out-of-state utilities could not own power plants in Wisconsin. After ownership arrangements were reformulated, an application was rejected on the basis of lack of need despite power pool requirements in neighboring states to be served by the proposed plant.

(2) The Kentucky Public Service Commission attempted to prevent a state utility from acquiring part ownership of a plant in Indiana, and instead ordered power purchases pending completion of an in-state facility. The order was overturned by a state court. Several states have also imposed substantial severance taxes on coal, effectively taxing generation of power for out-of-state consumers.

(3) New Mexico attempted to tax electricity exports, but the law was struck down.

(4) The California Attorney General determined that California utilities must comply with California environmental standards when building power plants out-of-state, including preparation of an environmental impact statement for review in California.

The nine regional reliability councils, which comprise the National Electric Reliability Council ("NERC"), are the only nationwide interstate planning institutions. NERC was created following the Northeast Power Failure of 1965 and has become increasingly important in providing mechanisms for power system coordination. The function of the reliability regions has been to provide a forum for the coordination of plans and operating procedures as they related to the reliability of regional bulk power supplies. While the councils have no statutory authority to regulate their members, NERC claims it has evolved into a "pseudostatutory" organization, since it is in the interests of each member to fulfill its reliability commitments.

Another source of voluntary utility cooperation are the 30 power pools currently operating to promote efficient power generation and increased reliability. They vary considerably, ranged from loose informal arrangements to centrally operated and completely integrated systems. Generally, state regulation has not been applied to bulk power supply planning and such activity is precluded to the extent it would conflict with the Federal Energy Regulatory Commission's responsibility for interstate power regulation. Despite Federal authority to investigate the adequacy of interstate service, a recent survey concluded that these procedures have so far gone largely unused. Under the Federal Power Act and the Public Utility Regulatory Policies Act, the Department of Energy has powers to require interconnection and wheeling between utilities with the possible exception of companies operating solely intrastate.

Because regional issues represent a range of problems, it is inherently difficult to suggest a single appropriate response. Institutions and arrangements in such a sensitive political area must be carefully fashioned to address clearly defined problems. Moreover, the limits of a state's sovereignty may be less than the theoretically perfect boundaries for system planning and operation. Those states that wish to promote conservation and renewable energy resources, and assume the risks of power curtailments, should not be forced to adopt the energy future of neighboring states with more traditional perspectives.

Nearby states and other utilities within a power pool should receive notice and opportunity to comment and participate in much the same manner as interested constituencies within the host state. States could explore multistate forums for determining need for power and the certification of individual units with a view toward opening a regional planning dialogue with neighboring states on matters of interstate concern.

6.6 The Problems With Delay

The prior recommendations would operate to remove the basic causes of much unnecessary delay. Advance planning, early public participation, more explicit policies, and procedures all will help to remove some of the major factors delaying decisions. Additionally, certain regulatory initiatives now being practiced by a growing number of states to reduce delay have been favorably received by the Special Committee. The establishment of reasonable regulatory time limits and schedules, coupled with some measure of flexibility for the unforeseen, can be an important source of discipline in the process despite some inherent imperfections.

Unless interested participants are given more reason to view the process as fair and unbiased, they will have every incentive to prolong the proceeding, using delay as a tactical weapon. The remedy is to take the steps necessary to assure basic procedural fairness without losing sight of the goal of reaching and enforcing decisions. Prominent among these steps must be the freer flow of information among all participants.

From the perspective of many utility officials and regulatory authorities, delay is the biggest issue in power plant licensing; unnecessarily time consuming and unpredictable. Anyone interested in meeting today's problems must come to grips with the widely perceived belief that, whatever the merits of deliberation, it takes too long to make decisions and too long to get things done.

First, there is a major difference between anticipated and unanticipated delay. The authors of the Ford Foundation Report, Energy: The Next Twenty Years, have described this distinction as follows:

> If a utility anticipates the period from application to a final (decision), it can plan accordingly and minimize the cost of delay. The costs of unanticipated delay, on the other hand, are likely to be greater because of interest, wage, and other expenditures that could have been avoided if the delay had been foreseen.

Other studies have pointed to the relationship between time and the quality of decision-making. For example, "delay itself does not mean inefficiency if such delay contributes to an increased quality of the final product." The Ford Foundation Report similarly notes that a "lengthy delay caused by a site review process may not seem unwarranted if it results in the discovery that a proposed nuclear plant would create a grave risk to public safety and health."

One way to analyze the time required by states to review power plant proposals is to examine the range of issues which must be addressed before reaching a conclusion. For example, some states seriously consider conservation and decentralized technologies as alternatives to all or part of the applicant's proposal on a case-by-case basis when first raised by interventors. Other states continue to rely exclusively on utility initiatives unless very substantial showings are made by intervenors. The addition of such issues, especially when they first appear at the licensing stage during formal hearings, undoubtedly adds to the complexity and duration of licensing procedures. These issues may belong in the generic, advance planning phase where they can be fully heard and then applied to the licensing of individual units without further inquiry. It is also suggested that the issue of public participation be examined by the states. Although many states provide numerous opportunities for public participation, intervenor groups are much more active in some states than in others, which makes comparisons between state procedures suspect. It may be that by involving the public earlier and more informally, especially on generic matters, public views can be explored and accommodated, thereby removing major impediment to expeditious decision-making at the adjudicatory licensing phase.

The complaint that the licensing process takes too long is symptomatic of deeper problems in the regulatory process. Foremost among them has been the failure to distinguish between issues which can and should be resolved in generalized proceedings with conclusions broadly applicable to the licensing of individual power plants and those which require a case-by-case resolution. Instead of relitigation in case after case the role of conservation, elasticity of demand, and the comparative costs of alternative fuel resources, these generic concerns (the need for power and the choice of technology) should be separately resolved in the advance plan proceeding outlined above. Indeed, the most significant conclusion underlying delay may be the importance of making explicit determinations on these important policy tradeoffs.

APPENDIX A

STATE REGULATIONS AND PROCEDURES

Alabama

I. Basic Regulatory Approach:

In Alabama, the Public Service Commission ("PSC") determines the need for power through prior certification of power plants. A certificate of convenience and necessity is required prior to construction of facilities for the "production, transmission, delivery, or furnishing of gas, (or) electricity. . . ." (Ala. Code §37-4-28). Need-for-power decisions could also be made during ratemaking proceedings since the PSC must consider, during ratemaking, "the necessity . . . of enlarging plants, facilities, and equipment." However, according to the PSC, need determinations are not made during rate proceedings. The PSC also exercises general supervisory powers over utilities. (Ala. Code §37-1-32).

The PSC is the only agency directly concerned with power plant licensing, but it does not have the power to override local zoning or other necessary permits.

The PSC has three full-time, elected commissioners who serve four-year terms.

II. Demand Forecasting and Planning:

The PSC staff must evaluate utility economics and "future needs for utility services." (Ala. Code §37-1-12). However, no independent forecast is developed.

Utilities must submit long-range forecasts with applications for power plant approval. Utilities must also detail energy import/export/pooling plans and alternatives to the proposed expansion, including conservation. No separate hearings are held on utility plans.

III. Timing and Stages in Power Plant Decision-making:

Neither the statutes nor the regulations set time limits on the scheduling or completion of the licensing process for power plants.

IV. Practice and Procedure:

Intervention in any proceeding is allowed to any person who is "affected thereby." (Ala. Code §37-1-87). The state provides an assistant attorney general to represent consumers in any proceeding in which such intervention is deemed advisable in the public interest. (Ala. Code §37-1-16). The state also provides a "consumer's utility rate hearing fund" up to $250,000 annually for use of the PSC chairman, attorney general, and governor to "present the case for the consumer in utility rate increase hearings." (Ala. Code §37-1-18). This does not encompass intervenor funding.

Low-cost documents (but not transcripts), liberal intervention rules, open access to information, and party status are available to encourage intervention.

V. Projected Construction:

Alabama has 13 power plants projected for construction, with a total capacity of 6,627 MW. (Figures include on TVA nuclear plant, 2,664 MW, which is exempt from PSC regulation.) Two others are nuclear, five are coal, and five are hydroelectric. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

Alaska

I. Basic Regulatory Approach:

The Alaska's Public Utilities Commission's (PUC) authority falls into two classes. First, the PUC issues Certificates of Public Convenience and Necessity to allocate territories to utilities. Alaska Stat. §42.05.221. This power is seldom used. According to the PUC, in the decade since the system of certifying for territories was adopted the only certificates were used to utilities eligible under the "grandfather" clause. The PUC also has authority to regulate rates (*Id.* at §42.02.361) and this authority may be the sole source of utility construction review. There is no prior licensing of power plants.

Additionally, Alaska has a Power Authority with power to issue bonds and construct power plants. *Id.* at §44.56.010 *et seq.* The Authority is expressly exempted from the jurisdiction of the PUC. *Id.* at §44.54.090.

II. Demand Forecasting and Planning:

Utilities are not required to submit long-range forecasts to the PUC for approval and the PUC does not engage in its own forecasting. The Alaska Power Authority operates on the express statutory assumption that power development is necessary to meet growing demand and to further economic development. *Id.* at §44.56.010.

Rate procedures could provide an avenue of need for power review. Rates are required to be "just and reasonable." *Id.* at §42.05.381. Thus, the PUC might find that a utility which built to an unreasonable excess should not properly be allowed to raise its rates. *Id.* at §42.05.431. In fact, this seems to have occurred. According to the PUC, in at least one case a utility was denied permission to include unused capacity in the rate base. Presumably this authority would allow for a complete examination of a utility's demand forecast.

III. Timing and Stages in Power Plant Decision-making:

Since no licensing of power plants occurs, there are no time limits.

IV. Practice and Procedure:

Hearings must be held to determine the reasonableness of rates. Any consumer may, by complaint, challenge a utility's certificate of public convenience and necessity. *Id.* at §42.05.271. The statutes set out no standing requirements or limitations *for* intervention at either rate or certificate challenge proceedings.

The state does not provide a consumer advocate.

V. Projected Construction:

Alaska has five power plants projected for construction with a total capacity of 218 MW. Two of the projected units will be hydroelectric, one each coal, oil. Two of the plants will capture waste heat for conversion. U. S. Department of Energy, *Inventory of Power Plants in the United States* (December 1979). The causes of delays, if any, and their impact on system reliability are unknown.

Arizona

I. Basic Regulatory Approach

Since 1971, utility construction in Arizona has been subject to the authority of two state agencies. The Arizona Corporations Commission ("Commission") has traditional authority over rates, Ariz. Rev. Stat., §40-203 the issuance of securities, Id., at §40-302, and such other powers as are necessary and convenient. Id. at §40-202. The Power Plant and Transmission Line Siting Committee (the "committee") has explicit statutory authority over the siting of power facilities. 1971 Ariz. Sess. Laws ch. 67 §1.

The relationship between these two agencies, with respect to power plant licensing, is not readily apparent. When the committee was created, one stated purpose was to "provide a single forum for the expeditious resolution of all matters concerning the location of electric generating plants . . . in a single proceedings . . . ." 1971 Ariz. Sess. Laws ch. 67 §1. Apparently, however, the preexisting requirement that any utility obtain a Certification of Public Convenience and Necessity from the commission prior to undertaking construction of new facilities not "in the ordinary course of business" was left intact. Ariz. Rev. Stat. §40-281. Furthermore, the commission may review and reverse decisions of the committee at the request of any part to the proceeding. Id. at §40-360.07.

The committee is composed of 18 members representing various state agencies, municipalities, and members of the public, including environmental, archaeological, and state park interests. Id. at §40-360.01. The committee reviews a utility's siting plans, conducts public hearings, and issues "timely" decisions on the issuance or denial of Certificates of Environmental Compatibility for power plant sites.

When an application for a Certificate of Environmental Compatibility is received, the committee sets a time and place for hearing. Id. at §40-360.04. Evidence is taken under oath, but the hearing need not be a formal adjudication. Id. The committee considers:

1. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site.
2. Fish, wildlife, plant life, and associated forms of life upon which they are dependent.
3. Noise emission levels and interference with communication signals.
4. The proposed availability of the site to the public for recreational purposes, consistent with safety considerations and regulations.
5. Existing scenic areas, historic sites, and structures or archaeological sites at or in the vicinity of the proposed site.
6. The total environment of the area.
7. The technical practicability of achieving a proposed objective and the previous experience with equipment and methods available for achieving a proposed objective.
8. The estimated cost of the facilities and site as proposed by the applicant and the estimated cost of the facilities and site as recommended by the committee, recognizing that any significant increase in costs represents a potential increase in the cost of electric energy to the customers or the applicant.

9. Any additional factors which require consideration under applicable Federal and state laws pertaining to any such site.

Id. at §40-360.06(A).

Furthermore, the committee considers the sensitivity and value of any areas which are "unique" for reasons of biological wealth. Id. at §40-360.06(B). The committee may waive state or local regulations which are "unreasonably restrictive."

It is unclear if need for power decisions are made at all in Arizona. If they are, they may be made by the committee under the general authority of Section 40-360.06(A)(8) or (9) cited above. Alternatively, the commission could determine need either on review of the committee's decision or during proceedings for issuance of its own Certificate of Convenience and Necessity.

Arizona has an Atomic Energy Commission which must license nuclear waste handlers within the state. This may affect technology choices in Arizona. Ariz. Rev. Stat. §30-672.

II. Demand Forecasting and Planning:

Utilities planning to construct any facility within ten years must annually file ten-year plans with the commission showing proposed construction, capacity, expected date of completion, fuel type, etc. Id. at §40-360.02. The extent of commission review of these plans is not specified in the statutes and regulations. Failure to file a plan may be grounds for refusal to consider an application for a Certificate of Environmental Compatibility. Id. However, the plans are not binding on the submitting utility. Id.

III. Timing and Stages in Power Plant Decision-making:

0 days	Application for Certificate of Environmental Capability is received by the commission and referred to the committee.
10 days	Chairman of committee sets time and place for hearing. Public notice as to time and place of hearing (notice to affected areas of jurisdiction must be given at least 20 days prior to scheduled hearing).
40-70 days (30-60 days after first notice)	Hearings take place under oath. Committee or hearing officer will receive material, nonrepetitive evidence, and comments of the parties to the proceedings and any rebuttal evidence of the applicant.
Within 180 days of filing	Determination of committee to grant or deny Certificate of Environmental Compatibility by a majority decision of its members.
Within 15 days of committee determination	Appeals may be filed for review by commission.
30-60 days after committee determination	Commission affirms and approves certificate by order or, if review is requested, reviews case and makes final determination.

(Maximum time lapse from day 0 is eight months.)

Certificate of Public Convenience and Necessity: Neither the statutes nor the regulations specify limits on the timing of issuance of Certificates of Public Convenience and Necessity.

IV. Practice and Procedure:

Virtually any group representing any concern can have standing in a hearing as long as the group files an intent to be a party within ten days of the notice of the hearing. Municipalities, counties, and agencies have standing whether or not they are already represented by a committee member. Individuals can make a limited appearance, by submitting a written statement to the commission within five days of the hearing. *Id.* at §40.360.05.

Neither public funds nor counsel appear to be available to support public participation.

V. Projected Construction:

According to the DOE *Inventory of Power Plants in the United States*, 13 projected power plants are projected for Arizona with a total capacity of 6941.4 MW Nine of the proposed plants are coal, five nuclear, three oil, and one hydroelectric. Other sources report the construction of a solar photovoltaic unit (.225 MW). Of these, 13 have experienced delays. Legal challenges or siting procedures were not cited as factors in the delays.

Arkansas

I. Basic Regulatory Approach:

Arkansas has adopted a comprehensive power plant certification system. Responding to criticism of widespread delays and regulatory inefficiency, the legislature instituted a system that vests all but exclusive siting jurisdiction in a single agency and grants that body authority to rule on need for power and choice of technology. The new procedure sets explicit time limits, including a schedule for the final agency decision on all matters relating to construction.

The Arkansas Public Service Commission ("PSC") is the agency responsible for utility licensing and siting in Arkansas. Act 866, the "Utility Facility Environmental and Economic Protection Act," (codified at Ark. Stat. Ann. §73-276-276.18), established a one-stop decision-making process to govern all energy utilities, including both generating and transmission facilities. §3(b). The Environmental Compatibility and Public Need ("need certificate"), §4(a), which is in lieu of the certificate of convenience and necessity previously required by the PSC §9(e).

In deciding whether a certificate should issue, the PSC considers need for power and choice of technology issues as well as environmental and economic matters. The application for the certificate requires a statement of the need and reasons for construction of the facility, §5a.(3); an analysis of the projected economic or financial impact of the project on both the applicant and community where the facility will be located, §5a.(4-7); an analysis of the estimated effects on consumer electric rates, §5a.(8); and an environmental impact statement. The EIS must include a discussion of the basis for selection of particular energy production methods, §5(10). In short, need for power and choice of technology considerations are explicitly and comprehensively considered in the Arkansas regulatory scheme.

The role of the recently created Arkansas Department of Energy ("ADOE") in the certification process is unclear. Apparently, the ADOE merely advises the PSC, which has final authority over certification.

The recent legislation also recognizes the importance of state review of utility decisions on generating technology. The Act declares that "laws . . . should be strengthened to protect environmental values, to encourage the development of alternative renewable and nonrenewable energy technologies which are energy efficient, and to take into account the total cost to society of such facilities." §2. The PSC's decision to grant or deny the certificate includes a determination that the energy efficiency of the power production facility has been given significant weight in the decision-making process. §9a(a).

II. Demand Forecasting and Planning:

The PSC requires each public utility to furnish on an annual basis a report which forecasts system demands for the next two years. These reports are available for public inspection and are supplied to municipalities and environmental groups upon written request. §15.

The ADOE also reviews utility planning. That body has jurisdiction to develop energy supply and demand forecasts grouped by renewable and nonrenewable resources. The ADOE will also calculate and plan energy delivery systems for the state.

III. Timing and Stages in Power Plant Decision-making:

0 days	Application for Certificate is filed with the PSC; it is also sent to at least 13 state agencies and municipalities involved with the licensing decision for review and comment. Notice of date when application is to be filed and deadlines for intervening are also set at this time. §5(b).
Within 30 days after notice of hearing	Intent to intervene or to make a limited appearance must be filed with Commission. §5(b).
60 days	Commission receives comments from state agencies on adequacy of the applicant's statements in the application for the certification. §5(11).
No later than 20 days before hearing	Commission determines whether to send deficiency letter to applicant. Letter will be sent to applicant if staff determines that applicant failed to adequately develop any relevant environmental or economic aspect of proposed facility. §5a(11).
40-90 days	Public hearing.
Within 60 days of conclusion of hearing	A copy of the Commission's decision and any order issued therewith is served upon each party to the proceedings. §9(d).

(Total time up to 150 days.)

IV. Practice and Procedure:

Virtually any relevant state agency,* affected municipality or county, individual, nonprofit corporation formed in whole or in part to promote conservation or natural beauty, energy conservation, environmental protection, personal health or other biological values, and commercial or industry interest group may intervene as a party. §7(a)(2), (3). Any person may make a limited appearance in the proceeding. §7(b).

Additionally, agencies and others automatically receive the application and may submit comments to the Commission.

Public notice requirements are extensive throughout the proceedings. Recent Commission policy has required applicants to serve actual notice upon all landowners whose land is likely to be traversed by transmission lines.

V. Projected Construction:

At present, Arkansas utilities have projected 3,043 MW of additional capacity, 943 of which would be nuclear and 2,100 coal. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979). The reasons for delay are equipment problems, strikes, labor shortages, and prolonged procedures. Id. At the coal units, financial problems, together with rescheduling and procedural difficulties, have contributed to the delays.

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* These agencies are: (1) Dept. of Pollution Control and Ecology; (2) Dept. of Health; (3) Dept. of Local Services; (4) Dept. of Industrial Development; (5) Dept. of Commerce; (6) Arkansas Highway Dept.; (7) Ark. Game and Fish Commission; (8) Ark. Environmental Preservation Commission; (9) any state agency which may have authority to assist in financing the applicant's facility; (10) agencies managing state-owned land upon which facilities may be located; (11) Dept. of Finance and Administration; (12) State Energy Conservation and Policy Office; and (13) Attorney General. §5(b).

California

I. Basic Regulatory Approach:

The Warren-Alquist Act of 1974 (codified at Cal. Pub. Res. Code §25000 *et*. *seq*. (West)) created a comprehensive energy planning and power plant licensing scheme in California. The Act created a new agency, the Energy Resources Conservation and Development Commission ("Commission"). The Commission is composed of five members serving five-year terms appointed by the Governor subject to the advice and consent of the state Senate. *Id*. at §25204. The Commission is required to conduct energy research, collect energy data, and assess energy policy for the state. *Id*. at §25216.2. It is also responsible for conducting public hearings and evaluating utility applications to build new power plants larger than 50 MW. The Public Utilities Commission ("PUC") continues to regulate utility rates and revenues and also retains jurisdiction over plants built out-of-state by California utilities.

The regulatory process for electric generating plants administered by the Commission is divided into three principal components. The first stage is a biennial report issued by the Commission. This report must address the extent to which new facilities are needed, the availability of alternative technologies (including unconventional ones), and the relative desirability of available sites. The report's conclusions on need for power are binding in later proceedings.

The second stage is the "Notice of Intention" ("NOI") to construct a facility, a middle ground between generic planning and site-specific licensing. The NOI has been described as an effort to (1) reduce the risks of relying exclusively on a single site proceeding to meet long lead time requirements for power, and (2) an effort to open planning to the public by creating a stage in which the principal issue is the appropriateness of the utility proposal in concept. Two hearings are held; first an informational "presentation." *Id*. at §25509.5. Among other purposes, this nonadjudicatory hearing is held to "solicit information regarding reasonable alternative sources of electric generating capacity or energy. . . ." *Id*. These alternatives may be included in the final report on the NOI. *Id*. at §25510.

The third stage is the "Application for Certification" ("AFC"), the site-specific approval requirement. This proceeding is necessary to ensure the actual design satisfies the criteria established in preceding stages and to address the specific concerns of affected local governments and other stage agencies.

Investor and publicly-owned utilities are subject to the same procedures. Some sites (designated coastal areas regulated by the Coastal Commissions or the San Francisco Bay Conservation and Development Commission) are, however, subject to additional requirements.

The certificate issued by the Commission is "in lieu of any permit, certificate, or similar document required by any state, local, or regional agency," and supersedes such requirements. *Id*. at §25500. However, this apparent exclusivity is qualified in several respects. Local laws may not be superseded unless the Commission finds that "there are not much prudent and feasible means of achieving such public convenience and necessity," and the reasons for this conclusion must be in writing and on the record. *Id*. at §25525. An Attorney General's opinion interpreted this language to require the Commission to "give great weight to the comments, opinions, ordinances and standards of local governments. The concerns of counties and cities are not to be ignored or given secondary consideration." 58 Ops. Cal. Atty. Gen. 729, 745; Opinion No. SO 75-47, October 31, 1975. A recent Commission policy paper states that similar treatment will be given to the conclusions of other state agencies.*

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* California Energy Commission, Power Plant Siting Policy Paper 81 (Nov. 1978).

Significant independent authority is also exercised by the Public Utilities Commission, a constitutional agency which retains its authority to issue certificates of public convenience and necessity for facilities proposed by investor-owned utilities. Cal. Pub. Res. Code §§25518, 25518.5. The PUC is also required to evaluate utility load forecasts, Pub. Res. Code §§25303, as well as the design, operation, and location of proposed facilities from the standpoint of financial, rate, and reliability concerns. Id. at §25506.5. Meanwhile, the Commission sets standards for load management for each utility service area which must be approved by the PUC, but which are then accepted as an allowable item in the rate base. Id. at §25403.5. Further, the Commission must suggest potential energy conservation measures involving utility rates or cost-of-service policies to the PUC, and the latter must submit responses to the Governor and legislature. Id. at §25403.

The PUC has also been given greater legislative direction to promote conservation and investment in renewable energy sources. A 1976 amendment provides that the PUC may authorize up to one percent greater return on investment for projects "designed to generate or produce energy from renewable resources" at a lower cost over the life of the system than existing methods. Cal. Pub. Util. Code §454. A similar higher rate is also authorized for experimental projects designed to perfect such technologies, or to more efficiently utilize resources. Id. Another amendment directs the PUC to investigate the feasibility of alternative methods of providing low-interest, long-term financing of solar energy systems for utility customers. In 1975, a PUC decision concerning a PG&E requested rate increase also announced a policy for conservation, warning that in future rate proceedings

> we intend to make the vigor, imagination, and effectiveness of a utility's conservation efforts a key question. . . . The effort we expect is not limited to exhortation, advertising, and traditional means for promoting conservation. We expect utilities to explore all possible cost-effective means of conservation. . . .

Subsequent PUC orders have reaffirmed and expanded upon this principle.

The dual certificate requirement and the respective jurisdictions of the PUC and the Commission are not without ambiguity. This issue is addressed in a recent Energy Commission policy paper which concluded that:

> There is little danger that this PUC proceeding will conflict with the AFC. Since the PUC has already played a key role in the NOI by helping the Energy Commission determine the basic acceptability of the siting proposal, there is little purpose to be served by duplicating the analyses which the PUC might require for its own certification proceeding.*

Earlier, the authors suggest that "whatever siting alternatives are found acceptable at the NOI will stand a reasonable chance of gaining PUC certification as well as Energy Commission certification."**

II. Demand Forecasting and Planning Procedures:

Chapter 4 of the Warren-Alquist Act. Pub. Res. Code §25300 et seq., is devoted to planning and forecasting.

Every electric utility must subject to the Commission biennial reports specifying five, 12, and 20-year forecasts of loads and facilities required to meet them. The report must include peak loads and reserve margins for each year in the five and 12-year forecasts, a description of possible additional capacity obtainable through pooling, importation of power, or improvements in generating efficiency, and a description of the underlying growth factors assumed to influence demand for electricity. Id. at §25301. The utilities' submissions must employ a "common forecasting methodology" prepared by the Commission.

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* California Energy Commission, Power Plant Siting Policy Paper at C-3.

** Id. at C-2.

The Commission reviews and evaluates the utility forecasts with comments from the PUC and growth estimates by the Department of Finance, Population Research unit. The Commission must identify the environmental implications of the projections, evaluate conservation "reasonably expected to occur," and identify "reasonable alternative technologies." Id. at §25304. After a six-month period of public comment and review, the Commission must issue a preliminary report setting forth its findings concerning the accuracy and acceptability of the utilities' forecasts. Id. at §25305. This report is then subject to further review including public hearings to "obtain views and comments," Id. at §25307 (apparently nonadversarial), before issuance of a final report within 12 months of receipt of the initial reports. Id. at §§25307, 25308, 25309. This report is then included with the Commission's biennial report to the Governor and legislature discussing emerging trends related to energy supply, demand, and conservation for the state for the next five, 12, and 20 years. The Commission may only certify plants in compliance with the 12-year forecast, Id. at §25524, and may not certify the plant of applicant utility which has failed to implement load management techniques found to be feasible. Id. at 25403.5. The site certification (AFC) proceeding also must assure conformity with the forecast. However, the Commission may not order utilities to adopt a specific supply plan.

III. Timing and Stages in Power Plant Decision-making:

0 days	Utility submits "Notice of Intention" ("NOI") to file an application for site certification and facility approval; the NOI must contain at least three alternative sites, a statement of need for the facility in relation to the Commission most recent biennial report, and a preliminary statement of the relative economic, technological, and environmental advantages and disadvantages of each site.
45 days	Public information hearing in the county of the proposed sites.
60 days	Nonadjudicatory hearings to delineate issues.
150 days	Commission issues a summary and hearing order assessing the relative merit of each proposed site, the degree to which the facility comports with need forecasts, the degree of compliance with applicable local, state, and Federal laws, and the safety and reliability of the facility at each proposed site. Comments of the local authorities and the PUC are to be taken into account.
180 days	Adjudicatory hearings on the summary and hearing order.
300 days	Release of final report containing the Commission's evaluation of the acceptability and relative merit of alternative sites, including desirable conditions or modifications for any site. The report must contain the demand forecast, and any applicable state, regional, or local laws or land use plans.
330 days	A hearing is held on the final report (30 days after its release).
365 days	Final Commission determination on the NOI; at least two sites must be acceptable unless an exception is made by the Commission; if no site is acceptable by capacity is found to be necessary, at the request of the applicant, the Commission shall designate a feasible site. (§2516.6). The Commission may find a site suitable for additional generating capacity in the same determination.

Concurrently or following the NOI, a utility must obtain a certificate for the site from the Commission. This certificate is a prerequisite to obtaining a certificate of public convenience and necessity from the PUC. The Commission acts as the lead agency for the Environmental Impact Report which is to be completed within one year. Id. at §25519(c). The application must contain detailed information concerning the design, construction, and operation of the proposed facility.

0 days	Filing of the application for a site certificate with the Commission.
180 days	Decision on additional facility at an approved multiple facility site.
90 to 240 days	Hearings on the proposal. Id. at §25521.
18 months	Written decision (later is applicant agrees). Id. at §25522. The decision must include specific provisions relating to the manner in which the facility is to be designed, sited, and operated in order to protect environmental quality and public health. If the Commission finds noncompliance with any local or regional ordinance, the Commission must meet with the affected government and may not certify the facility unless it determines that there are not "more prudent and feasible means" of providing for the public convenience and necessity. Id. at §25525. Such findings must be in writing as part of the record.

Geothermal projects have legislative preference and must be licensed in 12 months.

IV. Practice and Procedure:

The Commission nominates and the Governor appoints an attorney to the position of public adviser for a term of three years. Id. at §25217.1. The adviser's job is to ensure full and adequate participation by interested groups and public at large. In particular, he is to oversee distribution of necessary notice in a timely fashion and to advise groups in ways of participating in the Commission's proceedings. The adviser also may recommend additional measures to facilitate public participation. Id. at §25222. All information filed is subject to a general Public Records Act, Cal. Gov't Code §6250 (West). The Department of Consumer Affairs also has power to intervene in PUC proceedings. Code §3194.

Neither the Warren-Alquist Act nor the PUC statute provide specifically for compensation to "public interest" participants at their proceedings. However, in a 1979 PG&E rate case, a citizen group petitioned for attorney's fees and costs on the basis of the PUC's discretionary authority to "supervise and regulate every public utility in the state and to all things, whether specifically designated . . . or in addition thereto, which are necessary and convenient in the exercise of such power and jurisdiction." The issue of discretionary authority is pending before the California Supreme Court.

V. Projected Construction:

California has 82 units projected for construction with a total capacity of 15,890 MW. Of this amount, 30.5 percent is projected to be oil, 28 percent hydro, 8.5 percent coal, 4.9 percent nuclear, and 24.4 percent other (mostly geothermal and waste heat). U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

Sixty-two units were described as significantly delayed, Legal challenges, regulatory delays, or changes in regulatory requirements were cited as the cause in 45 cases. An adverse effect on system reliability was suggested in eight cases.

I. Basic Regulatory Approach:

The Public Utility Environmental Standards Act of 1971 ("PUESA") Conn. Gen. Stat. Ann. §16-50q et seq., created the Power Facility Evaluation Council ("Council") to review utility applications to construct new generating facilities and transmission lines. The Act applies to any entity generating or transmitting electricity, including municipal utilities. In general, there can be no use of eminent domain powers by a utility, no site preparation, and no construction without a Certificate of Environmental Compatibility and Public Need from the Council. Id. at §16-50K.

The application for a certificate must include a full explanation of why the proposed facility is necessary, including a discussion of the proposal, conformity with the annual forecasts, and other advance planning. Id. at §16-51. The Council's decision must explain the need for the facility, the nature of probable environmental impact, the reasons why this impact must be accepted. Id. at §16-5p.

In making its decision, the Council relies on costs of investment and operation, costs to consumers, national and state energy policy objectives, conservation of nonrenewable resources, alternative energy sources, system reliability, and other factors. Council response to ABA survey.

The Council is within the Division of Public Utility Council ("DPUC") in the Department of Business Regulation. Conn. Gen. Stat. Ann. §16-50j. The nine members of the Council include the Commissioner of Environmental Protection, the Chairman of the DPUC, one designee each by the Speaker of the House and President pro tempore of the Senate, and five members appointed by the Governor, at least two of whom must have backgrounds in ecology and not more than one of whom may have any present or past affiliation with a utility or utility regulatory agency.

The DPUC must conduct hearings on rate structure at least biennially, which might be read to require consideration of load management. Id. at §16-19e. A guiding principle in the agency's determinations is that there be a "clear public need for the service proposed." Id. at §16-19e(a).

The authority of the Council is exclusive, but local governments may "regulate and restrict" facility location subject to possible modification or revocation by the Council if six members agree. Id. at §36-50x(d).

II. Demand Forecasting and Planning:

PUESA requires annual forecasts of the demand for electric power and identification and advance planning of the facilities needed to supply that demand and facilitate local, regional statewide, and interstate planning. Id. at §16-50g. To that end, every person generating electric power in the state must submit a ten-year forecast of loads and resources to the Council every year. Id. at §16-50r. Twenty-year forecasts are required in even years. The forecasts must include estimates of peak loads, resources and margins for each year, projected power imports and exports, conservation potential, and a list of planned generating facilities needed to satisfy the anticipated additional demand. The person must also file a description of the methodology used. All documents are available to the public and an open, nonadjudicatory hearing is required annually.

The Council is not required to do its own forecasting, but it has the authority to undertake studies deemed necessary to statutory requirements. Conn. Gen. State. Ann. §16-50v.

The DPUC is involved in the planning process through its chairperson who is a member of the Council. However, the DPUC is also required to consult with the Council at least once a year to coordinate activities. Id. at §16-19e. Similarly the Council must consult with the DPUC and solicit its written comments, together with those of the Council on Environmental Quality, the Departments Environmental Protection, Health Services, Economic Development and Transportation, and the Office of Policy and Management, prior to commencing a formal on-the-record hearing on power plant applications. Id. at §16-50j(f). These agencies may also participate in the hearing. Id. at §16-50n(a).

III. Timing and Stages in Power Plant Decision-making:

0 days	Utility application describing proposed facility, giving notice to the public and affected agencies, accompanied by a fee.
30-150 days	Hearing on the proposal in county where the proposed facility is to be located.
10 months	Decision on the proposal, stating in full reasons for the conclusion; up to 6-day extension.

IV. Practice and Procedure:

Public participation is encouraged. Citizens may intervene, although intervention rules are not classified as "liberal." Council response to ABA survey. In addition, any nonprofit conservation group has standing to participate in Council hearings. Id. at §16-50n. All parties have the right to present oral testimony and to cross-examine witnesses. Hearings on need for power are adjudicatory. Council response to ABA survey. Public access to information is allowed. Documents are provided at low cost, but transcripts are not.

A consumer counsel within the Department of Business Regulation has authority to advocate consumer interests which arise within the Department, including the affairs of the PUCA and the Council. The Consumer Councel is appointed by the Governor and serves a five-year term. Conn. Gen. State. Ann. §16-2a.

V. Projected Construction:

Connecticut has one new unit scheduled to come on line, a nuclear unit rated at 1,156 MW. The plant is anticipated to come on line in 1986. It reportedly was delayed by "revised load forecasts." United States Department of Energy, Inventory of Power Plants in the United States (December 1980).

Colorado

I. Basic Regulatory Approach

A utility must obtain a Certificate of Public Convenience and Necessity from the Public Utilities Commission ("PUC") prior to the undertaking of service to an area already served by another utility, or prior to any construction or extension not "in the ordinary course of business." Colo. Rev. Stat. §40-5-101. The meaning of "ordinary course of business" has not been defined by regulation or tested by the courts. In practice, utilities request a certificate for "large power plants" but not for peaking units. The PUC has interpreted its general statutory powers broadly to include the authority to require a determination of need for power prior to certification of large power plants.

Municipal utilities operating outside their municipal boundaries are treated in the same manner as investor-owned utilities. Colo. Rev. Stat. §40-1-103. The PUC has also the power to review securities issuance to review the need for several facilities. PUC response to ABA survey. A proposed security must be approved unless its issuance would be "inconsistent with the public interest." Id., see also Colo. Rev. Stat. §40-1-104. The 30-day limit on approvals provides a limit on the investigation of need. However, where financing is required for small utilities (e.g., substations), this time may be sufficient. In fact, small facilities have been denied financing on the basis of need, but apparently this control has not been applied to any power plant, although the authority to do so is clear. Id.

The PUC has no authority to preempt any local or other agency requirement.

II. Demand Forecasting and Planning:

Legislation passed in 1979 requires the PUC to prepare biennial forecasts of electric and natural gas demands, energy conservation, trends of energy consumption, and the PUC's assessment of energy supply and prices. Utilities are to submit their biennial ten-year forecasts to the PUC, for the PUC's use in preparing their forecast. While the PUC is directed to "independently evaluate the energy forecasts . . .," it is unclear how the review will take place.

During the certification proceeding for a power plant, the PUC examines the need for the proposed facility in an adjudicatory hearing. However, review is limited to the particular utility's need for new capacity and not statewide issues.

III. Timing and Stages in Power Plant Decision-making:

There are no statutory time limits imposed on the certification process.

IV. Practice and Procedure:

Adjudicatory hearings must be held prior to issuance of Certificates of Public Convenience and Necessity, PUC Response to ABA Survey; Colo. Rev. Stat. §40-1-111, and on complaints, Id. at §40-6-108. Intervention rules are liberal. PUC response to ABA survey. Public access to information is assured. Id.

A newly created Office of Consumer Services, in the Lieutenant Governor's Office, may intervene, coordinate intervention, and assist intervenors in electric utility rate proceedings.

V. Projected Construction:

Colorado has 17 units projected for construction with a total capacity of 7,245 MW. This construction will more than triple the state's capacity. Twelve of the new units will burn coal; five will be hydroelectric: 15 of the units are behind schedule.

Delaware

I. *Basic Regulatory Approach*:

Delaware statutes do not specifically require the licensing of new power plants. Del. Code tit. 26 §201 *et seq*. However, the Public Service Commission ("PSC") does have expansive general supervisory powers which it has been interpreted as authorizing need for power review. The PSC has exclusive original supervisory jurisdiction over property, mortgages and securities, *Id*. at §215; and over rates and rate bases, Id. at §§201 and 302.

Acting under these general supervisory powers in 1976, the PSC ordered Delmarva Power and Light Company (the state's only investor-owned generating utility) not to enter into any contracts for the construction of generating capacity or transmission facilities without specific PSC approval. *In re Delmarva Power and Light Company*, Del. PSC Docket #829, order #1536 (1976). Pursuant to that order and a later application for approval of construction, the PSC ordered Delmarva to prepare and submit load forecasts, construction plans, estimated construction costs, and alternatives to new construction, including involuntary load control. *In re Delmarva Power and Light Company*, Del. PSC Docket #878, Findings and Order #1871 (1978).

The PSC must issue Certificate of Public Convenience and Necessity prior to the initiation of new service by an investor-owned utility or the undertaking of service to a territory.

Municipal utilities also generate electricity, but these are not subject to PSC jurisdiction. Del. Code tit. 26 §202.

Legislation in 1978 created the Delaware Energy Office. *Id*. at tit. 29 §9401 *et seq*. In addition to providing for substantial energy planning functions (discussed below at II), the legislation created the Energy Facilities Siting Liason Committee ("committee"). *Id*. at §9408. The committee evaluates the impact of proposed energy facilities on the environment and promotes long-term planning. The committee is required to prepare annual reports assessing the effect of all state and Federal regulations on proposed facilities, including flow charts and time line diagrams of legal requirements. Where duplication is identified, the committee is to recommend legislative reforms. *Id*. However, the committee does not exercise regulatory powers.

Energy facility siting in Delaware is also directly affected by provisions of the state's Coastal Zone Act. Del. Code Tit. 7, ch. 70. The Act prohibits heavy industry and requires a permit from the Director of the Office of Management, Budget and Planning (the "Director") for any new manufacturing in the coastal zone. The Director's decision can be appealed to state Coastal Zone Industrial Control Board. *Id*. at §7007. At least two permits have been granted to Delmarva Power and Light Company for a coastal cooling water intake. Delmarva Power and Light Company's response to ABA Survey. The Delmarva Superior Court has affired a ruling by the Coastal Zone Industrial Control Board that a generating station is not classified as heavy industry and is allowed in the coastal zone by permit as a manufacturing use. Kreshtool v. Delmarva Power and Light Company, 310 A.2d 649 (Del. Super., 1973).

II. *Demand Forecasting and Planning*:

The PSC has no express authority to either evaluate long-term planning or undertake independent planning. However, pursuant to its general supervisory powers, the PSC has ordered Delmarva Power and Light Company to submit sales and peak load forecasts and comparisons of actual sales with expected results. *In re Delmara Power and Light Company*, PSC Docket #878, Findings and Order #1871 (1978).

The Delaware Energy Office also has forecasting responsibilities. It must prepare forecasts of energy supply and demand. Del. Code tit. 29 §9407. The supply and demand forecast must include an assessment of growth trends and consumption of energy by end use. Id. at §9413. Furthermore, it must prepare a biennial energy conservation plan. Id. at §9409. The energy conservation plan must recommend percentage reductions in projected energy consumption for 1980, 1985, and 1990, and must include suggested implementation provisions. The energy office must hold public hearings on the plan "as necessary." Id. at §9409. The plan is submitted to the governor as a recommendation, who assigns responsibility for implementation to specific agencies and proposes necessary legislation.

III. Timing and Stages in Power Plant Decision-making:

The PSC statute requires that the "commission shall give preference to the hearing and decision of any rate proceeding over all other proceedings and decide the same as speedily as possible." Id. at tit. 26 §307. Under certain conditions, rates go into effect seven months after filing if the PSC fails to take action. Id. at §306.

The Delaware Energy Act of 1978 declares that it is a state policy "(t)o minimize, consistent with the statutory environmental and land use policies of this State, regulatory delay in the siting of energy facilities in Delaware caused by overlapping and duplicative permit systems applicable to such facilities." Id. at tit. 94 §9403(9).

IV. Practice and Procedure:

The PSC enabling legislation makes no reference to public participation. However, liberal intervention is allowed in public hearings on need for power and choice of technology. The public is granted open access to information and low cost documents. The Delaware citizen advocate may participate in rate, financing, and thus, in power plant approval proceedings.

One purpose of the energy policy office is "(t)o encourage and ensure full and effective public participation in the formulation and implementation of a Delaware energy policy." Del. Code tit. 94 §9402. Toward that objective, public education as well as access to information is provided for, and hearings are to be held "as necessary." Id. at §9407.

V. Projected Construction:

According to the United States Department of Energy, Inventory of Power Plants in the United States (December 1979), one plant is projected for construction in Delaware (446 MW coal).

Florida

I. Basic Regulatory Approach:

Florida addresses need and technology choice issues in the context of its power certification process. The legislature has established a modified one-stop system by providing that the Department of Environmental Regulation ("DER") may issue a certificate which shall be in lieu of other state action.* Fla. Stat. §403.511. Utilities desiring to construct a power plant must apply to the DER for a certificate. Fla. Rules 17-17.03. The DER is required to hold a hearing which addresses the necessity for expanded electrical generation, environmental impacts," other public interests and any issues deemed appropriate by the hearing." Id. at §17-17.11. Broad legislative findings, enacted into law, provide the DER with ample authority to consider which technology is best suited to satisfying a given level of need. The Department has the power and duty to implement the provisions of the Act, Fla. Stat. §403.504

> It is the policy of this state that, while recognizing the pressing need for increased power generation facilities, the state shall insure through available reasonable methods that the location and operation of electrical power plants will produce minimal adverse effects on human health, the environment. . . . It is the intent to seek courses of action that will fully balance the increasing demands for power plant location and operation with the broad interests of the public. Id. at §403.502.

After a certification hearing, the hearing officer drafts a proposed order which is submitted to the Siting Board, a statewide elected body composed of the Governor and six members of the cabinet. Fla. Stat. Ann. §403.503(9) (West). The Board is empowered to make the final decision on the proposed project.

The Public Service Commission ("PSC") also pays a role in state need for power decision-making. The PSC's ratemaking function is specifically excluded from the broad grant of power given under the DER. Fla. Stat. §403.511. However, the Commission is charged with making a determination ". . . as to the present and future need for the electrical generating capacity to be supplied by the proposed electrical power plant." Id. at §403.507(1)(b). Thus, it is at least theoretically possible that the DER could find that a new plant is needed and issue a certificate allowing construction while the PSC might exclude the cost of that plant from the rate base after deciding that the plant represents an unwarranted expansion of capacity. In practice, the PSC decision on need is given great weight by the DER and such conflicts have not arisen.

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* Schroeder and Enholm have suggested that Florida does not have a true "one-stop" process: "The Florida process has been characterized as a 'committee/clearinghouse approach'. . . . Such an approach seeks to improve the process not so much by reducing the number of licenses required as by designating a lead agency or establishing a committee of agency representatives to consolidate the hearing process and to coordinate regulatory requirements." C. Schroeder and R. Enholm, The Need for Power Issue in the Context of Recent State Power Plant Siting Legislation (1979). The summary description of the Florida process contained in this report is based in large part on the more comprehensive Schroeder and Enholm study.

II. Demand Forecasting and Planning:

Florida utilities are required to submit annual ten-year plans to the Department of Community Affairs ("DCA"), Bureau of Land and Water Management. These plans include demand forecasts and discussions of proposed construction. State planning responsibilities are fragmented. The Division of State Planning released a State Comprehension Plan in 1977 which has not been updated since that time. The Division was abolished in 1979, and the planning function was transferred, together with other functions of the Division to the Department of Community Affairs. The PUC also forecasts demand for electricity. Neither body's determination is binding on the other.

III. Timing and Stages in Power Plant Decision-making:

The major steps of the timetable established by the Florida Electrical Power Plant Siting Act are outlined below. (This section is based on Schroeder and Enholm, supra.):

0 days	The applicant utility files an application and application fee with DER.
7 days	DER requests that a hearing officer be appointed. (The Director of the Division of Administrative Hearings must appoint one within seven days of receipt of DER's request.) Fla. Stat. Ann. §403.5065(1)(West).
10 days	DER states whether the application is "complete" (as distinct from "sufficient"). If DER considers the application incomplete and the applicant utility disagrees, then a hearing is commenced within 30 days, after which the hearing officer has ten days to issue a decision to resolve the dispute. Id. at §403.5065(2).
15 days	DER must transmit the application to the PSC, DCA, and the appropriate water management district. Id. at §403.507(1).
30 days	DER must have commenced all studies it is required by statute to conduct regarding the suitability of the site for a power plant. Id. at §§403.507(2)(3).
60-75 days	PSC, DCA, and the water management district must submit their preliminary reports. Id. at §403.507(1).
90 days	The land use hearing is conducted near the proposed site; a recommended order from the hearing examiner is due within 30 days of the end of this hearing; a final order from the Board is required within 45 days of receipt of hearing officer's report. Id. at §403.508.
5 months	Reports from the PSC and DCA (and the water management district) are filed with DER. The PSC report considers especially the need for the capacity to be supplied by the proposed power plant. Id. at §403.507(1)(b). The DCA report. evaluates the "compatibility of the proposed electrical power plant with the state comprehensive plan." Id. at §403.507(1)(a).
7 months	DER studies are completed. (The responsibility for considering environmental impacts falls primarily on DER.) Id. at §403.507(2).

8 months	DER report completed and submitted to hearing officer. Id. at §403.504(8).
10 months	The certification hearing commences. Id. at §403.509(3).
12 months	The hearing officer presents a recommended order to the Board. Id.
14 months	(Technically, 12 months and 60 days.) The Board issues a written order approving, modifying, or denying the recommendation order. Id. at §403.509(1).

IV. Practice and Procedure:

The siting statute provides liberal rules aimed at fostering public participation and coordinating agency action. The PSC, DER, DCA, and the water management district in which the plant is to be located are all parties to the proceeding. Fla. Stat. Ann. §403.508(4)(a)(West). Other governmental bodies may become parties by filing notice. The statute significantly liberalizes standing requirements.

A less direct, but important, feature of the process which helps to ensure responsibility is the composition of the Board; the final decision is made by elected officials who are directly accountable to the public.

> Additionally, in any administrative, licensing, or other proceedings authorized law for the protection of the air, water, or other natural resources of the state from pollution impairment or destruction, the Department of Legal Affairs, a political subdivision or municipality of the state, or a citizen of the state shall have standing to intervene as a party on the filing of a verified pleading asserting that the activity, conduct, or product to be licensed or permitted has or will have the ffect of impairing, polluting, or otherwise injuring the air, water, or other natural resources of the state." Id. at §403.412(5).

V. Projected Construction:

According to U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979), 20 power plants are projected for construction in the state of Florida. The plants represent a total addition to capacity of 9,217 MW to be achieved through 11 coal, eight oil, and one nuclear plants.

Georgia

I. Basic Regulatory Approach:

Georgia is one of the few states which does not directly review the proposed construction of electric power plants through a facility certification process. The Public Service Commission ("PSC"), lacking explicit statutory authority, has traditionally declined to analyze utility construction plans in need for power terms. These issues are addressed, if at all, in the general context of deciding upon utility petitions for increased rates or proceedings to review proposed sales of securities.

Similarly, the choice of power generating technology is determined by utility management subject to PSC oversight exercised sparingly, if at all.

The Georgia Consumer's Counsel currently advocates a more active role for the Commission. The Counsel has called upon the Commission to develop a certificating process on the theory that such a requirement would be incident to the "general supervisory" powers of the Commission set out in the enabling statute. The Consumer Counsel's action apparently stems from Georgia Power's announcement that it will seek to build a nuclear plant while at the same time selling part of its coal-fired capacity to out-of-state concerns.

The resolution of the case is likely to have a considerably impact on the manner in which Georgia determines need for power plants and choice of generating technology.

II. Demand Forecasting and Planning:

Georgia laws do not require utility demand forecasts, though the Georgia Office of Energy Resources ("OER") monitors energy trends and prepares an emergency energy plan. Ga. Code Ann. §40-437.

The state also develops its own forecast through a contract with the University of Georgia. This is the extent of state involvement in demand forecasting at present.

III. Timing and Stages in Power Plant Decision-making:

There is no power plant certification process in Georgia, therefore, there are no relevant time constraints.

Ratemaking actions take effect after 30 days notice, unless the PSC suspends the new rates for rate review proceedings. However, the PSC cannot suspend rates for longer than five months. If the PSC has not decided the case within five months, the new rates go into effect subject to a refund if the PSC rules against the increase. Id. at §93.307.1.

IV. Practice and Procedure:

Hearings are held upon complaint to the PSC, or, in the Commission's discretion, on reasonable notice after the filing of a request for a rate increase. There are no formal mechanisms for interagency coordination. The state does provide a Consumer's Utility Counsel to appear on behalf of consumers. Id. at §93-3A.

V. Projected Construction:

Twenty-four power plants are projected for construction in Georgia with a total capacity of 7,732 MW. Sixteen of the projected units will be hydro, four will burn coal, two nuclear, and one oil. Nineteen of the new plants are delayed. Where reasons are given for the delays, financial constraints predominate. Legal or administrative delays are not mentioned. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1980).

Hawaii

I. Basic Regulatory Approach:

While Hawaii's three-member Public Utilities Commission ("PUC") has no express statutory authority to regulate plant construction, it does exercise the power of "general supervision," Haw. Rev. Stat. §269.16, the authority to regulate rates, Id. at §269.16, and the authority to approve financing. Id. at §269.17. Pursuant to these powers, the PUC has implemented regulations requiring the preconstruction review of capital expenditures in excess of "$500,000 or ten percent of the total plant in service." Hawaii P.U.C. General Order #7. Further, these regulations also require annual PUC review and analysis of five-year capital improvement programs. Id. In short, Hawaii relies upon its traditional PUC regulatory powers upgraded administratively through public review of utility investment plans as a means to consider and determine power plant expansion programs. There are no municipal utilities in Hawaii.

Hawaii has at least two other state agencies which may have an impact on power plant decision-making. The State Energy Resources Coordinator evaluates state actions which have a "significant effect on energy consumption," and prepares analyses and proposals for conservation. Haw. Rev. Stat. §196-3. The Department of Planning and Economic Development also prepares voluntary long and short-range energy conservation plans. Id. at 201-12. Neither of these plans is binding on the PUC, but they could be raised at an expansion hearing.

The State Land Use Commission, the Department of Land and Natural Resources, and the county zoning departments may also play a key role in the siting of power plants. Should a proposed plant not be in accord with existing uses, these agencies become involved in the siting of the unit.

As much of Hawaii is in "Special Management Areas," the Coastal Zone Management Program may play an important part in power plant licensing. Haw. Rev. Stat. §205A-21 et seq. The Hawaii Coastal Zone Management Act generally discourages avoidable development in coastal areas. Id.

II. Demand Forecasting and Planning:

As noted above, utilities submit plans for large expansion and five-year plans of all capital improvement to the PUC for review. These plans must detail alternatives, including conservation. The PUC considers the plans in hearings where the need for facilities may be raised as an issue. Capacity built in excess of approved levels may be excluded from the rate base. PUC General Order #7. Choice of technology is not decided by the PUC.

III. Timing and Stages in Power Plant Decision-making:

Power plants are not licensed. Preconstruction review of major capital improvements must be acted upon within six days unless an investigations is initiated to stall the time period. Rate applications must be decided within nine months. Haw. Rev. Stat. §269.16.

IV. Practice and Procedure:

The Commission must hold hearings on construction plans and on "investigations" of complaints. PUC General Order #7; Haw. Rev. Stat. §§269-7, 269-12. Any person may swear a complaint about any aspects of utility operation. Id.

While no express provision is made for expanded intervenor standing, Hawaii courts have held that any "aggrieved person" has standing to participate in hearings. Additionally, the state provides a Consumer Advocate to represent consumer interests. The Consumer Advocate may participate in any PUC proceeding, but most of their involvement to date has been in rate proceedings. Id. at §269-51.

The state provides low cost documents and open access to information to facilitate intervention.

V. Projected Construction:

Hawaii has 13 power plants projected for construction with a total capacity of 397.5 MW. Though all of the plants are presently planned to be oil burning, Hawaiian utilities hope for extensive substitution of wind, OTEC, and biomass sources. These new sources should reduce the need to construct oil burning facilities.

Idaho

I. Basic Regulatory Approach:

Although it lacks explicit legislative authority, the Idaho Public Utilities Commission ("PUC") undertakes aggressive need for power analysis with the framework of traditional public utility regulation. Technology choice, initially a matter within the utility's discretion, is also actively reviewed by the regulatory agency.

The PUC is empowered to exercise general regulation over electric utilities in the state. Idaho Code, tit. 61. Utilities desiring to construct a new power plant must procure a Certificate of Convenience and Necessity from the PUC. The certificate may be issued only after the PUC finds that the additional power is necessary. Id. at §61-528. The PUC aggressively investigates the utility's demand projections and its forecast methodology. For example, In re Application of Idaho Power Company, Order No. 12663, September 17, 1976, holds that while a proposed coal-fired electric power plant was either needed now or would be needed shortly, the certificate could not be issued due to the environmental considerations. The law requires utilities to evaluate the total system for the provision of energy. Mere projections of future demand for electricity are sufficient, the utility must consider alternative methods of satisfying that need. The effects of conservation and the increased price of energy on future demands must also be considered. Id.

II. Demand Forecasting and Planning:

The PUC employs independent consultants to develop a forecast of Idaho's power needs. The PUC also scrutinizes the utility forecast as part of the certification process. There is statewide generic energy planning. The effect of this planning on the determination of issues relevant to this study is unclear.

III. Timing and Stages in Power Plant Decision-making:

The statute does not provide a timetable for decision-making.

IV. Practice and Procedure:

Public participation is a matter of right according to commission regulations which govern the proceedings. While the state has not adopted a comprehensive siting system, it has attempted to avoid needless duplication. According to the PUC, applicant utilities must list all permits that are required from other state agencies. Occasionally, joint hearings are held in order to avoid repetiion of testimony (though separate permits shall issue from each of the involved agencies).

V. Projected Construction:

In the five-year period from 1979-1984, Idaho Power Company plans to bring on-line four hydroelectric projects totaling 249 MW, U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979). The other two major electric utilities regulated by the commission--Utah Power and Light Company and Washington Water Power Company--do not have Idaho as their primary jurisdiction and thus do not seek Certificates of Public Convenience and Necessity from the Idaho Public Utilities Commission.

Illinois

I. Basic Regulatory Approach:

The Illinois Commerce Commission ("ICC"), a five-member board appointed by the Governor, regulates electric utilities as well as gas, telephone, and trucking services. The ICC administers a statutory scheme for power plant certification essentially unamended since 1921. No utility may begin construction of a power plant without a certificate of "public convenience and necessity." Ill. Rev. Stat. ch. 111-2/3, §56. In addition, the utility must obtain approvals from many other government agencies at the state, local, and Federal level, each acting independently. The ICC has no explicit statutory authority over environmental or local land use regulations, but it examines such issues in detail before approve specific sites.

The ICC's governing statute does not address need for power or choice of technology. Nonetheless, the ICC considers these issues in certification proceedings as a matter of administrative discretion. Moreover, the ICC has initiated several generic proceedings to evaluate these issues in greater depth as discussed below. Increasingly, rate cases have come to serve as a forum for the discussion of need for power. For example, following a recent rate order, the utility announced a postponement in construction of two units, asserting lack of funds.

Two other agencies also exercise energy policy functions bearing on the issues of concern to this study. The Institute of Natural Resources ("Institute"), created by the legislature in 1978, consolidates numerous scientific and research functions within the Department of Business and Economic Development. See Ill. Rev. Stat. ch. 96-1/2 §7401 et seq. The Institute also represents the state in energy matters involving the Federal government, including the administration of energy programs under Federal law. For example, the Institute is responsible for implementing the residential conservation service program which mandates utility audits of residential energy use. A state solar energy program is another of its responsibilities. Additionally, the Institute may intervene in ICC proceedings to raise policy issues within its expertise, while its scientific staff will, on request, assess technical questions. Finally, the Institute must evaluate and report annually on the economic impact of Pollution Control Board rules and regulations, including their effect on the availability of energy. These evaluations are subject to public hearings and comment and may include proposals for modifications in regulations. The Institute has about 75 professionals assigned to energy problems, most of them in technical positions. Outside the ICC, the Institute is probably the agency in the best position to propose new conservation and supply initiatives.

The Energy Resources Commission ("Commission") is another relatively new state agency created to address energy issues. See Ill. Rev. Stat. ch. 93, §301 et seq. The Commission is comprised of 18 members appointed by leaders of the House and Senate, of whom ten must be state legislators. It is required to assess the state's administrative structure for energy matters, to coordinate the programs of various state agencies, and to recommend a long-range program for energy resources. Because of its membership, the Commission could provide important policy guidance, but it is not equipped to do the type of technical analysis being done by the ICC and the Institute.

A. Prospects for Legislative Change:

Substantial revisions of the Illinois law have been proposed many times. The desirability and necessity of changes were recently reevaluated by a Task Force on Power Plant Siting formed in November 1977 under the Illinois Energy Resources Commission ("ERC"). The Task Force was formed by the ERC chairman and included representatives of utilities and the public as well as the legislature and affected agencies. At the outset, task force members concurred that "the past and present performance of power plant siting in Illinois was relatively good; there is always potential for improvement; and it would be worthwhile for the task force to investigate what type of draft legislation could be evolved. . . ."

Draft legislation was prepared providing for a new agency, the Electric Generating Facilities Siting Council, to be formed out of the ICC, Illinois Environmental Protection Agency, and the Institute. The council would coordinate rather than supersede existing agencies; it would hold coordinated hearings but decision-making would rest with the same authorities. The proposal also provides for early site review and consideration of environmental impacts within statutory deadlines. Site review would be limited to 980 days of which 540 days are allotted to the utility to develop information. An additional 1,160 days would be allowed for construction authorization review, although it is expected this period could be reduced if early site approval is obtained.

At a meeting on March 27, 1979, the task force concluded that "there is no immediate need for power plant siting legislation and that the evolved draft of legislation would not enhance the current siting process." No further explanation was reported, but the tone of the final report suggests general satisfaction with the current system. Therefore, the task force recommended against introducing its own proposed legislation. However, there continues to be interest in some effort to coordinate agencies involved in reviewing power plants and possibly to hold simultaneous hearings. Changes along these lines might be implemented through executive order.

II. Demand Forecasting and Planning:

A. The State Role:

The ICC does not adopt or prepare statewide or service area forecasts; nor does it evaluate utility investment plans on a regular basis. Lacking a statutory directive to do so, the ICC has seen no need to plan for the state's future energy needs. Instead, it relies upon the utilities which customarily present their assessments for ten-year periods when applying for certification of new facilities. No regulation, however, requires them to do so. Similarly, the ICC has promulgated no standards to guide the utility plans or to gauge their acceptability. Moreover, since the state has yet to absorb the capacity approved in the early 1970's, no new applications--and, therefore, no new ten-year forecasts--have been forthcoming for some time. As a result, it is clear that not only is public planning nonexistent, but private utility planning is ad hoc, unregulated and limited to the licensing of new facilities, for which utilities file applications as near to the construction date as possible due to the so-called "two-year rule."

To a limited degree, rate cases have begun to fill this void. Increasingly, the affected utilities have filed petitions for increased revenues to compensate in part, for the rising costs of constructing additional power plants, coupled with reduced rates of consumption. In these proceedings, demand forecasts and construction plans have been central issues.

In response to problems posed in the rate cases and requirements of the Public Utility Regulatory Policies Act, the Commission has begun to examine utility construction plans in generic hearings. Though the proceedings are in early stages, they may prove to be an effective means of Commission oversight: they examine projections of demand growth, the setting and revision of reserve margins, and utilization of alternative technologies to meet forecasted demand.

B. The Utility Role:

Utility forecasting practices in the state vary widely as might be expected given their diversity in size and responsibilities and the lack of ICC direction.

As the state's largest utility, Commonwealth Edison's practices are generally cited as the most sophisticated. The company describes its load forecasting procedure as a multiple model approach defined by a multidisciplinary review committee comprised of 13 senior management members representing different perspectives within the utility. In addition, Edison brings outside consultants into the process regularly to critique the methods being used. It establishes high and low projections by adding to and subtracting from the ten-year forecast one year's growth. For 1979-1988, Commonwealth Edison projects annual peak load growth of 4.5 percent, a high growth of 5.0 percent and a low growth of 4.0 percent. These numbers are used for supply planning purposes as in the financial calculations discussed above.

III. Timing and Stages of Power Plant Decision-making:

The Illinois statutes do not impose time limits on the power plant certification process. However, once issued, a certificate must be exercised within two years. Ill. Rev. Stat. ch. 111 2/3 §56.

IV. Practice and Procedure:

The Illinois agency most responsible for promoting public participate in ICC proceedings is the Office of Consumer Services in the Governor's Office of Manpower and Human Development. The office was formed in 1977 using Federal funds provided by Section 205 grants for offices of consumer services. According to the agency director, the function of the office has been to provide technical support to consumer groups,

> . . . (t)he office provides a supportive role, providing technical expertise and direction as requested with the context (sic) of citizen participation in a utility user group an opportunity to make informed decisions about their preconceived point of view on a pending regulatory issue. It also offers a viable means to working within the regulatory process and to effectively representing their point of view supported by the factual information required for decision-making in this quasi-judicial regulatory setting. (citation needed)

The office has also identified more than 70 consumer advocacy groups in the state.

Although the state does not provide funding to intervenors, the Office of Consumer Services assists them with substantial legal and technical expertise, including expert witnesses. The office has also appeared in hearings on behalf of citizen groups, in effect functioning as a sort of public interest organization.

If the public turnout at recent rate hearings is a barometer in future power plant proposals, a high level of public interest can be anticipated. Several consumer and environmental groups also participate in the recent proceeding on Commonwealth Edison's construction program, though none have challenged it further. ICC officials expect that public interest in any power plant application would be great, especially if nuclear energy were the proposed technology.

V. Projected Construction:

There are 22 power plants projected for construction in Illinois representing a total additional capacity of 15,946 MW. Ten of the plants are scheduled to be nuclear. Ten and three of the plants will utilize coal and oil, respectively, as their primary fuel. Sixteen of the plants have been delayed a year or more. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

Indiana

I. Basic Regulatory Approach:

Indiana remains one of a handful of states which allows utility construction and investment without prior approval. The Public Service Commission ("PSC") regulates public utility rates, Ind. Code Ann. §9-1-1 et seq. (Burns), and territories through the issuance of Certificates of Public Convenience and Necessity prior to the undertaking of service in a territory. Id. at §8-1-1-86. The PSC attempts to consider the need for facilities during its review of rate petitions. The PSC believes that considering a utility's proposed sale of securities provides an avenue of review of utility construction plans.

Apparently, pipelines and other energy facilities are not regulated by the Indiana PSC.

Municipal utilities are exempt from regulation of "practices" although their rates are subject to state regulation. Ind. Code Ann. §8-1-2-86 (Burns).

II. Demand Forecasting and Planning:

Indiana's statewide energy planning is not statutorily established. However, there is a state energy office within the Indiana State Department of Commerce.

The PCS (without legislative mandate) is preparing a statewide forecast of electricity and natural gas demand through the year 2000. Id.

III. Timing and Stages in Power Plant Decision-making:

There is no prior licensing of power plants. There are no fixed time limits on rate cases except those involving automatic adjustment clauses. (40-day limit). Ind. Code Ann. §8-1-2142 (Burns).

IV. Practice and Procedure:

The PSC permits and encourages intervention of interested parties. PSC response to ABA survey. The state provides a public counsel who is charged with the duty of representing consumers. Ind. Code Ann. §§8-1-1-4; 8-1-1-5 (Burns). According to the public counsel's office, they have challenged the inclusion of unused capacity in the rate base. These challenges have not been successful.

V. Projected Construction:

Indiana has 21 new power plants projected for construction with a total capacity of 11,978 MW. Sixteen projected units will be coal burning, two oil, and three nuclear. Four projects are delayed for reasons attributed to legal challenges or prolonged procedures.

Iowa

I. Basic Regulatory Approach:

Public Utility regulation in Iowa is the responsibility of the Iowa Commerce Commission ("Commission"), a regulatory agency with three members appointed by the Governor with the consent of the Senate. Iowa Code §474.1. Iowa law requires utilities desiring to begin construction of a power plant designed for or capable of operation at 100 MW or more to obtain a Certificate of Public Use, Convenience and Necessity from the Commission. Id. at §476A.

The statute requires that the Commission consider need and technology choice issues in reaching a decision on the issuance of a certificate:

A certificate shall be issued to the applicant if the Commission finds that:

1. The service and operations resulting from the construction of the facility are required by the present or future public convenience, use, and necessity; and. . . .

2. The construction, maintenance, and operation of the facility will cause minimum adverse land use, environmental, and aesthetic impact and are consistent with reasonable utilization of air, land use, and water resources for beneficial purposes considering available technology and the economics of available alternatives. Id. at §476A. The Commission has interpreted this language as requiring an inquiry into the need for new construction and an analysis of which technology is best suited to meeting that need.

A separate Energy Policy Council, created in 1978, is responsible for assessing general energy issues and trends. Id. at §93.2. It has broad powers to plan for Iowa's energy future. Id. at §93.7.

II. Demand Forecasting and Planning:

Although the statute does not require demand forecasts, the Commission has recognized the role forecasts played in determining need. Chapter 24.4(3) of its regulations require applicant utilities to provide system load level information in the form of duration curves and quarterly load data for a ten-year period preceding the date of application. Chapter 24.4(4) requires projections for the life of the proposed generating facility concerning installed generating capacity, purchases of electricity, plans to conserve energy, and identification of the forecast methodology utilized by the applicant and a projection of system load levels in the form of duration curves, load curves, and integrated energy curves for each year from the date of application through the proposed facility's life.

Although the Energy Policy Council has broad authority relating to energy, it has deferred the responsibility for electric load forecasting to the Iowa Power Pool, a private utility association which develops its own plans.

III. Timing and Stages in Power Plant Decision-making:

The Commission is instructed to render a decision on an application in an "expeditious manner," but the specifics are essentially in the Commission's discretion. Iowa Code §476A.6.

The Commission has adopted regulations providing for the content and timing of applications. Iowa Administrative Code Commerce (250), ch. 24:

0 days	Thirty days before filing an application, the applicant must hold an informational, nonadversarial meeting in the county of the proposed facility. §24.7.
30 days	Filing of the application, including a general site description, general technical engineering description, description of material and fuel requirements, system load level information for the preceding ten years, demand and projected alternative supply anticipated for the facility's life, including a description of the forecast methodology used, identification of applicant's programs for energy conservation, a discussion of the economics of alternative sources of power generation, and a discussion of community impact within 45 days.
75 days	The Commission must rule on the adequacy of the application within 45 days; if accepted, a hearing date must be set, if not, the applicant must be told the deficiencies and given at lest 30 days to amend.
120 days	Prehearing conference to identify and clearify all the issues and to cause the parties to consider stipulations and admissions of fact.
130 days	The Commission issues order based on the action taken at the conference and controlling the subsequent course of the proceeding.
120 to 180 days	An adversarial hearing is held before a commerce commissioner and a hearing officer from the Department of Environmental Quality. All agencies with regulatory responsibility must participate. Following the hearing, the Commission is to render a decision "expeditiously."

IV. Practice and Procedure:

A. Interagency Coordination:

The Commission may overrule city and county zoning authorities; the statute specifies no standard for such action. Other state regulatory agencies responsible for the issuance of licenses or permits required for the construction, operation, or maintenance of a facility participate in the certification hearing. The Commission may not issue a certificate for a facility which does not meet the permitting and licensing requirements of these regulatory agencies. The determination of whether a regulatory agency's requirements have been met may be made by the Commission although no such determination has yet been made. The Act does provide that if a regulatory agency fails to appear of record in a proceeding, the Commission shall conclusively presume that the facility meets the regulatory agency's requirements.

The exact relationship between the certification process and other state agencies was the subject of litigation between the Commission and the Iowa Department of Environmental Quality. Department of Environmental Quality v. Iowa State Commerce Commission, Polk County District Court Docket Nos. CE 11-6046 and CE 11-6082, "Ruling on Respondent's Motion to Dismiss Petition," (filed October 30, 1979) (granting motion and holding that the Department of Environmental Quality is not an aggrieved party and therefore lacks standing to challenge a Commission order). The Court summarized the nature of the Iowa siting process:

> The functional relationship contemplated by Chapter 476A is that DEQ shall have an initial opportunity to approve the plans for pollution control attending an application. Until the plans can be approved,

it is DEQ's statutory obligation under Section 476A.5 to recommend steps that will bring them within its permit and licensing requirements. When the plans are finally approved, DEQ issues a conditional permit and then ISCC renders its decision.

After ISCC issues the certificate of public convenience, use and necessity, Section 476A.8 provides that a regulatory agency (DEQ) shall not require any further approval, permit, or license for the construction of the facility 17. Chapter 124, Acts 67th G.A., amended Chapter 455B in 1977 to provide that the issuance of a conditional permit by DEQ's executive director constitutes a determination that the facility meets the requirements of DEQ. As defined in Chapter 476A, once DEQ has issued a conditional permit, it has fulfilled its subordinate role in the decision-making process although under Section 455B.33(4) it may still require the applicant to apply for final construction permits that will meet limitation of the conditional permit. This right was specifically preserved in the ISCC certificate and order. Id.

The process is essentially one-stop--although several permits may be required--the law requires that the licensing provision is "in lieu of any other proceeding or oral presentation required for a license or permit necessary for the construction, maintenance, or operation of a facility." Iowa Code §476.11.

Iowa also utilizes mechanisms to coordinate action among agencies. The utility's application is forwarded to all agencies having an interest. The state has adopted a modified one-stop system: i.e., although several agencies retain authority to issue required permits, the hearings are consolidated in one proceeding chaired by the Commission.

B. Public Participation:

Interested parties may intervene in the siting process. Regulation §24.9(2). Additionally, information meetings are required to be held at least 30 days prior to the date of applications at the sites of the proposed plant. The statute requires notice to interested agenncies, county and city zoning authorities, owners of property within 1,000 feet of the proposed site, and notice in a newspaper of general circulation in the county of the proposed site. Id. at §476.4. The Commission Counsel, in addition to working for the Commission, also represents the public. Iowa Code ch. §475.

V. Projected Construction:

Seven units are projected for construction in Iowa. Six would be coal (total: 2,707 MW) and one oil (25 MW). None of the units have been designated delayed by DOE. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

Kansas

I. Basic Regulatory Approach:

Kansas utilizes a recently overhauled system of regulation which empowers the traditional utility regulatory agency with explicit authority to consider need for power and choice of technology issues. It has not adopted a one-stop siting system.

Kansas utilities desiring to construct a power plant (regardless of size) must obtain a permit from the State Corporation Commission ("Commission"). Kan. Stat. §66-1,159. The Commission is required to hold a hearing at which time it considers, inter alia, (1) whether there is a statewide need for additional power, and (2) what is the most environmentally and technically feasible manner in which to meet the need. Id. at §1,162. The legislative intention to make these issues of paramount concern in the siting decision-making process is evident from the statute. However, the Commission may reach any consideration necessary to make a decision.

The Commission has yet to license any facilities under the statute (the law was enacted in 1978). It is unclear whether the reference to "statewide need" implies that no new facility will be allowed if there is excess capacity anywhere in the state. Agency regulations which should resolve this and other uncertainties are now under consideration.

Other facets of the Kansas regulatory structure affect the issues that are of concern to this study. In 1975, the legislature created the State Energy Office. Id. at §74-6801 et. seq. The Director of the Office is empowered to:

> Develop a comprehensive state energy conservation plan, establish energy research and development priorities, and act as a continuing liaison between other agencies and government units of the state. Id.

The state has also taken steps to foster the use of alternative technologies. On the sale of electricity generated from a renewable resource, utilities are allowed a rate of return 0.5 percent--two percent higher than that normally allowed. Id. at §66-117.

II. Demand Forecasting and Planning:

The Commission is currently revising its regulations in order to implement its recently amended enabling statute. Thus, while the Commission has not required utility forecasting to date, it is likely that it will impose such a requirement in the near future in order to satisfy the statutory mandate to consider the need issue. Also, it appears as though the Commission will assume an aggressive posture in ascertaining the true level of need. In addition to staffing an office, which will, among other things, scrutinize submitted forecasts, the Commission has also established a load management team to develop an in-house forecast. Still, some questions (such as the extent to which the Commission will engage in generic style advance planning) remain unanswered.

III. Timing and Stages in Power Plant Decision-making:

0 days	Application filed. Commission shall fix a time for a public hearing. Id. at §66-1,159.
30-180 days	Hearing begins.
Within 90 days after hearing begins	Hearing must be completed.

Within 30 days of the conclusion of hearing	Commission shall make finding of fact. Id. at §66-1,162.
Within ten days of decision	Any party aggrieved by the Commission's decision may apply for a rehearing. Id. at §66-1,163.
Within 30 days of denial of application for rehearing or of decision on rehearing	Any aggrieved party may file an appeal in the Supreme Court of the State of Kansas. Id. at §66-1,164.

IV. Practice and Procedure:

A. Procedure:

The Commission is in the process of promulgating procedural regulations.

B. Public Participation:

The SCC is required to hold the hearing on the permit in the county in which the major portion of the facility is to be located. Id. at §66-1,159. It must also notify the public (by publication) of the hearing.

Though there is no provision for a permanent public advocate, the SCC is required to appoint an attorney to represent the interest of the landowners at the hearing. Id. at §66-161.

V. Projected Construction:

There are nine projected power plants in Kansas representing a total additional capacity of 4,229 MW. Six of the units will be coal fired, three oil fired, and one nuclear. Two of the units have been delayed.

Kentucky**

I. Basic Regulatory Approach:

Until 1979, the regulatory body charged with oversight of Kentucky utilities was the Public Service Commission. In that year, the PSC was split into the Energy Regulatory Commission ("ERC") and the Utility Regulatory Commission, with the former having jurisdiction over all energy utilities. Ky. Rev. Stat. §278.040. The structure and composition of the bodies and the required qualifications of their commissioners are provided for in the statute. Id. at §278.050 et seq.

Utilities seeking to begin construction of a new generating facility of any size are required to obtain two certificates from the ERC (a Certificate of Public Convenience and Necessity and a Certificate of Environmental Compatibility). In order to obtain the former certificate, the utility is required to show that there is a demand for and need for the service seeking certification. Id. at §278.020. In considering the utility's application for the Certificate of Environmental Compatibility, the ERC is required to consider consumer needs and customer requirements, industrial development, and the economics of the facility; all of which are to be balanced against environmental considerations. Id. at §278.025. The analysis required for the two certificates embodies a comprehensive, explicit approach to deciding need for power and choice of technology issues in the context of Kentucky's regulation of power plant licensing.

These considerations may also be relevant in the context of utility ratemaking. In reviewing a utility's rate structure, the commission may consider the nature of the use, the quality and time of use, and any other reasonable factor. Id. at §278.030.

Additionally, choice of technology analysis has been endorsed by the legislature. Legislation enacted in 1974 provides that "it shall be the policy of the Commonwealth of Kentucky to encourage and promote the development and demonstration of efficient, environmentally acceptable, and commercially feasible technologies . . . for conversion of coal." Id. at §152.750.

In 1978, the legislature created a Department of Energy. The Department has a broad mandate to coordinate energy matters within the state and to develop a comprehensive energy program. Other duties are specified in the statute. Id. at §152A.010 et seq., including the duty to maintain "a continuous inventory of energy requirements" and to prepare annual plans for "comprehensive energy management . . . which shall specify alternative ways in which projected demands for all forms of energy may be met." Id. at §152, Sec. 32(1) and (2).

Additionally, Kentucky has created a Board of Energy Research which approves demonstration projects to be funded by the Energy Development and Demonstration Fund. Id. at §152.15(1).

II. Demand Forecasting and Planning:

Utilities are required to maintain a uniform system of accounts which conforms as nearly as practicable to the National Association of Regulatory Utility Commissioners' model. There is no statutory requirement for demand planning or load forecasting.

** This summary reflects the correct Kentucky regulatory scheme as of September, 1980. On November 21, 1980, Executive Order #80-1010 was issued which reorganized the two agencies (Energy Regulatory Commission and the Utility Regulatory Commission) into a single public utility commission.

III. Timing and Stages in Power Plant Decision-making:

A. Internal:

Kentucky does not have time limits which constrain the initial decisional process by the Commission. Following the ERC's decision, however, there are statutory time limits:

Within 20 days of final order	Application for rehearing. Id. at §278.400.
Within 20 days of filing petition for rehearing	ERC shall decide whether to rehear the case.
Within 20 days of final order or within 20 days of application for rehearing	Protestant may bring an action in Circuit Court.

Additionally, §§278.180 and 278.190 provide that proposed rate changes go into effect in 20 days unless stayed by the ERC (in which case the ERC has five months to act on the request).

B. Coordination with the Department of Natural Resources and Environmental Protection (DNREP):

Prior to application to ERC	Statement of environmental compatibility, describing project and its environmental effects, submitted to DNREP. Id. at §278.025.
Within 60 days of receipt of statement by DNREP	DNREP reports to ERC its recommendations.
Upon receipt of DNREP report	ERC shall conduct an open hearing.

IV. Practice and Procedure:

A. Procedure:

Rules governing procedure and evidence before the ERC are specified by statute. Id. at §278.310 et seq. The ERC has also promulgated procedures by regulation. 5 Admin. Register 816 (May 1, 1979).

B. Coordination:

Before applying to the ERC for a Certificate of Environmental Compatibility, the utility must forward a copy of its plans to the DNREP. The Department studies and evaluates the proposal and reports its recommendations to the ERC within 60 days. The ERC is then required to consider environmental factors in reaching a decision. Ky. Rev. Stat. at §278.025.

The withdrawal of water from public waters for use in steam generating plants is specifically exempted from the permitting procedures of the DNREP. Id. at §151.140.

C. Public Participation:

Before issuing the Certificate of Public Convenience and Necessity, the Commission is required to hold a public hearing. Id. at 278.020. The Division of Consumer Intervention, within the Kentucky Attorney General's Office, frequently intervenes in ERC proceedings.

There must also be a hearing on the granting of a Certificate of Environmental Compatibility. That proceeding is open to all interested persons (statutorily defined as "any person whose living environment would be affected by construction of the proposed facility").

V. Projected Construction:

As of December 1979, there were 19 projected units in Kentucky representing a total additional capacity of 10,446 MW. Eighteen would be coal-fired steam plants and one would be oil. Six plants have been delayed a year or more with the primary cause listed as "revised load forecast." U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

Louisiana

I. Basic Regulatory Approach:

Louisiana has not enacted a comprehensive licensing process for power plant siting. There is no requirement that the utility secure a certificate or permit from the state prior to power plant construction. Similarly, there is no explicit authority for the Public Service Commission to consider the need for the power or the possible use of other technologies. The Board of Directors of the utility makes the need determination based on the utility's projection of need. The governmental restraints upon utility construction appear to be primarily local (e.g., zoning ordinances), or possibly environmental (e.g., Steam Control Commission).

The enabling authority for the Louisiana Public Service Commission is the Louisiana Constitution, Article IV, §21, (1974) and the State Code, La. Rev. Stat. Ann., ch. 45.

There is a provision in the statute relating to extensions of service:

> The Louisiana Public Service Commission has authority to require electric public utilities furnishing electricity to make extensions of their services and facilities whenever the revenues to be derived from the proposed extensions will be sufficient to provide a fair return upon the fair value of the facilities used and useful in rendering additional service. La. Rev. Stat. Ann. §45:122.

It is unlikely that this section is meant to encompass construction of new generation facilities.

Construction of facilities within the service area of another utility is also prohibited. Id. Power plant siting may also be subject to the requirements of the Louisiana Coastal Zone Management Program. See Id. at §49:213.1.

In a broad sense, the Natural Resources and Energy Act of 1973 (codified at La. Rev. Stat. Ann. §30:501 et seq.) drastically revised Louisiana energy policy. That Act:

- merged various state agencies with the intent of coordinating energy policymaking within the newly created Division of Natural Resources and Energy ("Division").
- provided for the conservation of energy and the development of alternative sources of power.
- created the Louisiana Energy Commission which has the duty to undertake studies regarding alternative fuel sources.
- empowered the Division to do any and all things necessary to obtain the broad objectives of the Act.

Title 30 was amended in 1975 to add sections 800-809 in order to provide for the development of geothermal energy resources. A similar act, enacted into law in 1978 (Acts of 1978, No. 542, codified at 30:1,151-1,159), expressed a corresponding attitude toward solar energy.

II. Demand Forecasting and Planning:

There are no provisions in the statute requiring utilities to make forecasts of future demand.

III. Timing and Stages in Power Plant Decision-making:

There are no provisions in the statute setting time limits on the decision-making process.

IV. Practice and Procedure:

No procedures provide for liberal intervention or standing, or other measures to increase public participation. There is no consumer advocate.

V. Projected Construction:

As of December 1979, Louisiana had 16 projected power plants representing a total additional capacity of 10,542 MW. Three of the plants will be nuclear. All of the rest (save for one whose fuel type is listed as "unknown") will be coal fired. Ten of the plants have been delayed a year or more. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

Maine

I. Basic Regulatory Approach:

Maine has a comprehensive regulatory scheme constraining the siting of all industrial development, including new power plants. Need for power and choice of technology issues are considered at several stages of regulation.

The Maine Public Utilities Commission ("PUC") consists of three full-time members appointed by the governor. 35 Me. Rev. Stat. Ann. §1. A utility desiring to build a power plant capable of or designed for operation at a capacity of more than 1,000 KW must first obtain a Certificate of Public Convenience and Necessity from the PUC. Id. at §13-A. The Commission is required to "make specific findings" which are binding since no other Maine agency reviews need for power.

The PUC, through the need analysis, also addresses choice of technology issues. The Commission requires that the proposed facility be the best available technology adopted to meet the need. Projects are evaluated in traditional terms--e.g., minimization of long-run cost to the ratepayers. The criteria are sufficiently flexible to include consideration of the effects of conservation, cogeneration, or other alternatives.

The Department of Environmental Protection also exercises authority relevant to technology choice issues. That agency examines projects to determine possible adverse impacts on the environment. 38 Me. Rev. Stat. Ann. §481 et seq. Presumably, the Department's scrutiny could effect technology choice if air, water, or other environmental regulations constrained particular systems.

A recent case may be indicative of the current regulatory approach in Maine. In re Central Maine Power Company, Docket No. 3238, October 2, 1979, (examiners report) (affirmed on appeal to the Commission (1979)), involved a utility petition for a Certificate of Convenience and Necessity to construct a 600 MW class coal-fired generating plant. The examiner denied the certificate based on a need for power analysis after exacting scrutiny of the utility's load forecast. This decision has not yet been tested by the courts. The decision also suggests a mode of analysis for these issues. The Maine PUC first undertakes an evaluation of projected power demand. Then, if a need for power is found to exist, the Commission evaluates the utility's choice of technology. "It is therefore the responsibility of this Commission not only that a need for additional generating or transmitting capacity exists, but also that the facilities proposed by the petitioner meet that need in the most economical and reasonable manner." Slip. Op., at 8.

In summary, need for power and choice of technology considerations are an important part of the Maine energy calculus. The PUC, supported by a broad statute, has made analysis of these considerations an important part of the regulatory scheme. The PUC may exempt facilities from local contract after notice and public hearing and a finding that "such exemption is reasonably necessary for public welfare and convenience." 30 Me. Rev. Stat. Ann. §4962.

II. Demand Forecasting and Planning:

Statewide energy planning is accomplished by the Office of Energy Resources. Present trends, rates, and supplies are analyzed with the intent of projecting future state needs. There is no statutory indication that the plan is binding on utilities or the PUC.

Rule M-202 requires utilities seeking a Certificate of Convenience and Necessity to provide a 15-year load forecast projecting peak as well as total demand. The utility must also provide copies of recent studies and a discussion of the assumptions on which the forecast is based. The impact of conservation, load management, and cogeneration on the forecast must also be discussed.

III. Timing and Stages in Power Plant Decision-making:

§13-a provides the following time constraints applicable to the siting process:

At least three months prior to submission of a certificate	Utility files with the Commission a notice of intent to file a petition.
0 days	Utility files the petition.
15 months	Maximum time Commission has to issue its final order.

IV. Practice and Procedure:

Maine's statutes do not explicitly provide for an office of public advocate. Maine does, however, attempt to foster public participation. The Attorney General is directed to assist consumers in the presentation of their position before the PUC, 35 Me. Rev. Stat. Ann. §95; the certification hearings are open to the public and the intervention rules have been liberalized.

V. Projected Construction:

Three power plants with a capacity of 663 MW are presently projected for Maine: Two hydro and one coal burning. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

Maryland

I. Basic Regulatory Approach:

Maryland, unique among the states, has a comprehensive power plant licensing process, including state-site acquisition and long-term planning. Need for power is reviewed in at least two contexts for most power plants.

Prior to construction of any individual power plant or power line carrying more than 69 kv, the utility must apply for and be granted a Certificate of Public Convenience and Necessity. 78 Md. Ann. Code §54A. The Public Service Commission ("PSC") must hold public hearings prior to issuance. Other state agencies are required to participate. Id. The Department of Natural Resources ("DNR") must study each application and recommend approval or disapproval within 60 days. Md. Nat. Res. Code §3-306. The resulting process, if an approved site is chosen, would be one-stop for licensing, site, and environmental approval. It is unclear whether the certificate preempts other state and local permits. 78 Md. Ann. Code §548.

In issuing a Certificate of Public Convenience and Necessity, the "present and future demands for service" must be considered. Other factors include the effect on system reliability, economics, environmental concerns, available alternatives, conservation, as well as energy policy. The PSC also reviews the utility's technology choice.

Maryland's Power Plant Siting Program reviews and acquires sites prior to specific power plant proposals. Md. Nat. Res. Code §§3-303; 3-304; 3-305. Funding is accomplished through a surcharge on electric utility rates. Four to eight power plant sites are to be maintained in inventory, but utilities may acquire sites for utilities with capacity in excess of 1,000 MW. Id. at §3-305. By joint decision of the PSC and the DNR, the state may also acquire sites for smaller utilities. 78 Md. Ann. Code §54A. The power plant siting program also undertakes environmental assessment of current and proposed sites. Md. Nat. Res. Code §3-303. Decisions of the Power Plant Siting Board completely exempt local zoning control, but not other state agencies.

II. Demand Forecasting and Planning:

Both Maryland's long-range planning and its project approval determinations involve need for power analysis. The state PSC annually assembles long-range (ten year) forecasts of electricity demands. The PSC does not independently forecast but does review utility forecasts. Md. Nat. Res. Code §3-304. Utilities also include projected power facilities, for the purpose of planning for site acquisition. Id. A determination of power demand and a consideration of alternatives is also required prior to the decision to purchase a power plant site. 78 Md. Code Ann. §54B.

III. Timing and Stages in Power Plant Decision-making:

A. Site Acquisition:

January 1	Annual PSC evaluation of generating need.
July 1	DNR's preliminary impact assessment. -- unsuitable sites so designated, utility owner of site offers substantial evidence to contrary.

At least two years prior to proposed construction	Completion of detailed investigation of suitable sites. Detailed environmental assessment issued, unless site found to be unsuitable.
Any time after designation of suitability, but not later than Jan. 1st two years later than initial listing in ten-year plan	Information meeting and hearing to determine whether to acquire.
Until 15 years after acquisition	Utility may purchase a 99-year lease.
15 years and 90 days after acquisition	Original owner may repurchase for price paid.

B. Certificate of Convenience and Necessity:

0 days (at least two years prior to proposed after two weeks published notice of hearing	Application for Certificate of Convenience and Necessity; and notice to interested parties, including Department of State Planning public hearing.
15 days after hearing	Agencies may comment.
90 days	Grant or deny.

IV. Practice and Procedure:

No statute specifies the level of intervention allowable in the DNR's hearings prior to site acquisition. Md. Nat. Res. Code §3-305.

Public intervention is allowed to any party who timely files, unless the interest of the person seeking to intervene is adequately represented in proceeding for a Certificate of Convenience and Necessity. 78 Md. Code Ann. §82B. Intervenors must be represented by counsel, unless appearing in proper person. Id.

The state provides a Peoples Counsel for issues before both the DNR and the PSC. The Peoples Counsel is funded by an electric rate surcharge.

V. Projected Construction:

According to the U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979), 14 power plants are projected for construction in Maryland with a total capacity of 5,466 MW. Ten of the units will burn oil, three coal, and one will be nuclear. Five of the plants are delayed (but one only five months). Procedural and regulatory delays are not cited as a major reason for delays.

Massachusetts

I. Basic Regulatory Approach:

Energy planning and facility siting in Massachusetts is primarily the responsibility of the Energy Facilities Siting Council, created in 1974. Mass. Stat. ch. 164, §69G et seq. The Council membership includes a wide array of perspectives and backgrounds: From government, are the secretaries of administration and finance, consumer affairs, environmental affairs, and man power affairs. From the public at large, the governor appoints six persons for three-year terms. These include one representative each of organized labor (selected from a list of five names supplied by the Massachusetts Labor Council, AFL-CIO), conservation interests, the electric power industry (who votes only on electric industry matters), and one person with experience in the gas industry (who votes only on gas industry matters). One professional engineer is also a member. No individual may be a member who has received a significant portion of their income from an affected industry in the preceding two years. Id. at §69H.

The Council reviews and approves long-term planning by utilities. Generally, facility approval is in the hands of local governments. No facility may be constructed unless consistent with the long-range forecasts and no agency may issue a construction permit unless the facility conforms to the most recently approved forecasts. Id. at §69I. However, if a facility which has been approved by the Council in a long-range plan is denied any state or local permit, the applicant may obtain from the Council a preemptive Certificate of Environmental Impact and Public Need.

A utility may petition the Council for a Certificate of Environmental Impact and Public Need if it is being "unduly delayed" by proceedings or by conditions imposed by any state or local agency. Council regulations add that in determining whether undue delay has occurred, the Council may consider the amount of time normally required by the agency or similar agencies to resolve issues of similar complexity and importance, and whether the delay is due to the failure of the company to supply information necessary for processing or granting the permit. A utility may also petition the Council for relief if it believes it is unable to construct a facility, because it cannot meet the standards imposed. Council regulations also indicate that it will consider petitions which argue that a condition or limitation is "out of proportion to the cost of the facility or to the benefits to be gained . . ." Regulations of the Energy Facility Siting Council ch. F Rule 52.2(5) (hereinafter "Rules"). In this case, no action may be brought until a final decision has been rendered by the agency in question. Id. at Rule 52.1.

The statute also indicates that the Council may accept a petition if it finds a condition imposed by another agency has "a substantial impact on the Council's responsibilities . . ." Mass. Stat. ch. 164 §69K.

The Act applies to oil and gas facilities, with municipal electric companies regulated in the same manner as those privately owned. The Public Utility Commission exercises jurisdiction over the rates of all state utilities.

The Council has authority to preempt any regulation issued by another state or local agency as described below.

II. Demand Forecasting and Planning:

Every electric utility was required to submit a ten-year forecast of power needs to the Council during 1976; an update is required by the end of 1980 and every five years thereafter. Id. at §69I. Forecasts must include a description of existing agreements with other utilities for joint planning and purchase or sale of electric power; a description of needs for its service area; and a description of actions planned to meet demand, including additions to capacity and expansions to existing facilities. Alternatives must also be described as well as the environmental impact of each proposed facility. Revisions and supplemental information must be filed annually.

The Council must approve the utility forecast (by majority vote) within 12 months if it finds that (1) all information is accurate and complete; (2) demand projections are based on "reasonable statistical projection methods"; (3) projections relating to pooling and sharing are consistent with other approved forecasts; and (4) plans for expansion are consistent with other health and environmental policies. The Council must act within 12 months, but may approve the forecast subject to conditions. Any rejection or modification must be explained in writing. Id. at §69J.

An adjudicatory hearing must be held on each long-range forecast within six months of filing. In addition, public hearings are required in each locality in which a generating plant is proposed. Id. at §69J. The long-range forecasts and public hearings thereon are the basic focus of debate on need for power and alternative technologies. The Council appears to have considerable discretion to include such conditions as it believes desirable, and no plant may be constructed if not approved within the forecast.

III. Timing and Stages in Power Plant Decision-making:

Prior to applying to the Council for a Certificate of Environmental Impact and Public Needs, the applicant must give 30 days notice by certified mail to the delaying agency of its intent to seek a certificate. Upon receipt of an application, a public hearing is to be held within 90 days, but not sooner than 60 days. A 30-day comment period must be allowed to permit the public to make written submissions.

The Council must reach a decision by majority vote within six months from the filing date, during which time it may remand questions of fact to the agency. Rule 53.1. Its decision must be in writing and must address the need for the facility, its compatibility with environmental objectives, any failure to conform with existing state and local laws, and "the public interest, convenience, and necessity requiring construction and operation of the facility." Mass. State. ch. 164 §69O. Once granted, the certificate is the sole legal requirement for construction, operation, and maintenance of the facility. Id. at §69K.

IV. Practice and Procedure:

Massachusetts has no consumer counsel, but the Attorney General has the power to intervene on behalf of consumers. The Energy Facility Siting Act also explicitly defines parties in interest to the proceedings on an application for a certificate. Any one approved by two-thirds vote may become a party.

V. Projected Construction:

Ten new power plants totalling 1,804 MW are currently planned or under construction. Of this total, 1,180 MW are nuclear and 624 MW are oil burning. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979). According to the utilities, three units have been delayed, but without effect on system reliability.

VI. Regional Arrangements:

In addition to the planning legislation already described, Massachusetts adopted legislation specifically authorizing utility participation in the New England power pool in 1973 (ch. 164A). The New England power pool agreement provides for cooperation and joint participation in developing a regional bulk power supply of electricity in accordance with Federal Power Act provisions. 16 U.S.C.A. §791a et seq. The state law specifically authorizes pooling of power, coordinated planning and construction of new facilities, allocation of pool expenses, delegation of authority to administrative committees, and arbitration.

Michigan

I. Basic Regulatory Approach:

The Michigan statutes governing regulation of public and privately-owned electric utilities, make no express provision for state determinations of need for power or choice of technology. To the extent that such decisions are made, the Michigan Public Service Commission ("PSC") relies on traditional regulatory powers over rates and securities issuance. Mich. Comp. Laws. §460.6; §460.301 et seq. By administrative order, the PSC requires utilities to prepare long-term forecasts. According to the PSC, these are "continually reviewed" by the PSC staff. Legislation before the Michigan Legislature would create a statewide power plant siting scheme--but it is unclear where such authority would be vested.

The PSC has completed ratemaking power and jurisdiction over privately-owned electric utilities and rural electric cooperatives but none over municipally-owned electric utilities. Section 6 of the Act, creating the PSC, Mich. Comp. Laws §460.6, purports to vest the Michigan PSC with power and jurisdiction to regulate "all . . . matters pertaining to the formation, operation, or direction" of utilities over whome it has ratemaking authority. However, the Michigan Supreme Court has interpreted the statute less broadly than it literally reads, with the result that the power and jurisdiction of the PSC can be said to be restricted to consideration of matters regarding utilities which the Legislature has specifically assigned to PSC purview. See Huron Portland Cement Company vs. PSC, 351 Mich. 255, 88 NW2d 492 (1958). Thus, the need for power and the choice of power generating technology comes up in the context of utility rate proceedings to the extent that there is an issue raised such as the "used and usefulness" of a plant--either after it is built and is being put into "utility plant in service" for ratemaking purposes for the first time, or during construction when the question of construction work in progress can be raised. The PSC also looks at demand for power questions indirectly by its standard filing requirements which apply to rate applications by electric utilities with gross revenues in excess of $50 million. PSC Case No. U-4771, May 10, 1976. These require presentation of sales and demand forecasts on a best estimate basis and within a band on either side of the best estimate. The utility is required to show how the high and low forecasts would change the expansion plan which would be used to meet the best estimate forecast. This information keeps the PSC aware of what is planned, but would be of use in the ratemaking process only as relevant to the traditional issues raised (noted above) in the particular test period adopted for fixing rates.

By statute, Mich. Comp. Laws, §460.301 et seq., the PSC must approve the issuance of securities by all electric utilities, except those owned by municipal corporations. The securities must be "necessary for the acquisition of property, the construction, completion, extension or improvement of facilities, or for the improvement or maintenance of service . . ." According to the PSC, the approval of securities is used to review utility construction plans. The statutory authority for such inquiries has not been tested, however, in recent years, both need for power and technology choice are reviewed in securities cases. A hearing by the PSC on an application is discretionary, but, in practice, one is normally held. Varying from case to case, a hearing may raise issues on need for power or choice of power generating technology, i.e., coal versus nuclear. A statutory amendment effective in 1978 provides that approval of a securities issuance does not create presumption that projects constructed with the proceeds will be included in a utility's rate base for ratemaking purposes.

A utility wishing to construct or operate a plant or utility system in a municipality which is already being provided similar utility service by another utility must obtain a Certificate of Convenience and Necessity. Mich. Comp. Laws §460-501 et seq. An applicable situation almost never arises.

The Michigan Energy Employment Act of 1976, Mich. Comp. Laws §460.801 et seq., authorizes the municipal governing bodies to construct power plants "demmed necessary to the continued efficient operation of the municipal electric utility system . . ." Municipal utilities are generally exempt from PSC regulation, however, they must make reports similar to those of investor-owned utilities. Mich. Comp. Laws §460.451; §460.501 et seq.

II. Demand Forecasting and Planning:

There is no express statutory provision requiring long-term forecasting by utilities. Nonetheless, filing requirements at rate proceedings established by the PSC do require utilities to submit forecasts for 15-20 years dictating a need for power and projected investment. Utilities must detail their forecasting methodology as well. PSC response to ABA survey. According to the PSC, the staff "continually reviews" these forecasts. Id. The plans may be raised in rate or securities proceedings where hearings are generally held.

The PSC does not prepare independent long-term forecasts, however, the PSC, in rate proceedings, has prepared short-term forecasts.

III. Timing and Stages in Power Plant Decision-making:

As power plants are not licensed, there are no time limits.

IV. Practice and Procedure:

Intervention by both citizens and local governments in Michigan PSC on rate and securities is liberally granted. PSC response to ABA survey. Public access to information and low cost documents and transcripts are provided. No public advocate or public funding to intervenors is provided by PSC, however, the Michigan Attorney General's Office has performed similar functions. Id.

V. Projected Construction:

According to the December 1979 Inventory of Power Plants in the United States, there are 15 power plants projected for construction in Michigan. Seven of the units with a capacity of 2,642 MW will burn coal; two will burn gas; one oil. Three will be nuclear plants, with a capacity of 5,254 MW. The fuel supply has not been determined for two plants.

Minnesota

I. Basic Regulatory Approach:

In Minnesota, the licensing of power plants and other energy facilities are made within a fairly complex framework of energy and environmental policies as well as through traditional public utilities regulation. Although the establishment of the Minnesota Energy Agency has organized and centralized energy functions in the state, licensing decisions still involve some duplication of effort and uncertain divisions of authority between the various responsible agencies.

Minnesota has a three-step process for state certification of power plants and other energy facilities. The Minnesota Energy Agency ("MEA") issues certificates of need for "large energy facilities" of all kinds--electric power plants, transmission lines, pipelines, LNG depots, refineries, etc. This agency also has responsibility for general energy policy and programs. Minn. Stat. ch. 116H; Minn. Rules EA 501. The Environmental Quality Board ("EQB") makes siting decisions and reviews the required environmental impact statements. Minn. Stat. §116C.51 *et seq.*; §116D.045. Other environmental permits (such as air pollution control) are issued by the state's Pollution Control Agency and Department of Natural Resources ("DNR"). Finally, the Public Service Commission ("PSC") makes rate and revenue determinations. *Id.* at §216B.01 *et seq*.

The licensing procedure is centralized in the MEA to the extent that its need for power determinations are binding on the other responsible agencies. This authority has not yet been challenged by those agencies, but the MEA, PSC, and EQB each note that it is unclear whether a Certificate of Need, once issued, determines that a plant must be built, whether or not siting or revenue requirements can be met. By statute, the MEA's Certificate of Need determination "supercedes" the authority of other agencies "whenever overlapping, duplication, or additional administrative or legal procedures might occur in the administration of (the energy agency act)," *Id.* at §116H.06, but this language does not address the authority of the PSC or EQB to, in effect, overturn a determination of need by denying financial approval or necessary environmental permits. This issue has not been raised by either the agencies or utilities.

The Certificate of Need covers size, general type, and timing of energy facilities. The MEA's determinations are based on assessment of need criteria. 6 Minn. Code of Agency Rules §2.0611. (Hereinafter MCAR). The director must make specific written findings with respect to each of the criteria. *Id.* at §2.0611(a). The criteria include, *inter alia*, a finding of whether the probable result of denial will have an adverse effect on the adequacy, reliability or efficiency of Minnesota's future energy supply, the effects of the applicant's promotional policies. *Id.* at §2.0611(c)(1). In addition to these need determinations, the criteria also require a finding that the project is compatible with "protection of the natural and socio-economic environments, including human health," and that "a more reasonable and prudent alternative to the proposed facility has not been demonstrated." Id. at §2.0611(C)2,3.

Under existing environmental legislation, the EQB has authority to review decisions of any state agency, including need decisions of the MEA if it acts within ten days of the decisions. Id. at §116D.04 subd. 9. The EQB then may, within 45 days, reverse or modify a decision if it finds it to be inconsistent with the standards of state environmental policy. The director of the MEA sits as a member of the board. This procedure has not yet been used to overturn a Certificate of Need decision, and is considered an extraordinary measure by both the MEA and EQB.

The EQB is responsible for the "orderly" siting of large electric power facilities (over 50 MW). Minn. Stat. 116C.55. The EQB prepares a biennial inventory of large facility sites and transmission corridors. Utilities submit to the EQB plans detailing the development of large power facilities for the next five years. These plans must identify sites for facilities and transmission lines. Id. When utilities propose specific facilities they must also propose at least one alternate site. Both sites must be in the approved inventory. Id. at 116C.57. Final approval results in the issuance of a Certificate of Site Compatibility. Id.

Consideration of alternatives is clearly mandated. Minn. Stat. §116H.13 sub. 3(7). The utility must discuss alternatives in its application for a Certificate of Need. 6 MCAR §§2.0633, 2.0634. Consideration of alternatives has been used to ensure planning flexibility. In one recent case, a need of 800 MW was determined, but the choice between one 800 MW unit or two 400 MW units was deferred to the siting stage. A further stipulation required that, if built, one of the 400 MW units would be tied to an innovative district heating plan for Minneapolis. The demand forecast was later revised, and none of the plants were built.

Environmental reports are required at several stages of the licensing process, first in the Certificate of Need proceedings, then by the EQB at the siting stage, and finally for the environmental impact statement. The MEA has had a problem in producing a thorough environmental study at the early Certificate of Need proceedings. The MEA has 60 days to produce the report which is "nearly impossible" since the MEA lacks the manpower and budget of the EQB. Id.

II. Demand Forecasting and Planning:

The MEA, as "central state repository of energy data" is directed to "review and evaluate . . . five, ten, and fifteen year forecasts (of) the projected demand for energy . . . and the facilities necessary to meet the demand." Minn. Stat. §116H.10, subd. 1, 2 and 5. Every two years the director publishes a "comprehensive report . . . to specify the level of statewide and geographical area energy needs," which includes, inter alia, a final report on the accuracy and acceptability of the energy forecasts received and the alternatives available to meet that demand. Id. at §116H.11(a). The Certificate of Need determination must consider "the relationship of the proposed facility to overall state energy needs" as set out in the biennial report. Minn. Stat. §116H.13, subd. 3. This report is not "the basis for certification" rather the criteria set out in 6 MCAR §2.0611 et seq. fulfill this role. The MEA perceives the Report as an "overview of the state's energy picture." The forecasts in it are less specific than those required of the utilities when applying for a Certificate of Need for specific facilities. MEA response to ABA Survey. Consequently, individual forecasts are relied on to a great extent in certification hearings. Another forecast is done by the MEA's policy analysis staff, which intervenes in major cases as a party. The supply and demand analysis staff is separate from, and does not interact with the Certificate of Need staff during those hearings.

Moreover, in its role as the chief repository of energy data in the state, the MEA requires regular forecasting, both "basic" and "extended," and data from the utilities, pursuant to 6 MCAR §2.0201 et seq. This information includes historical data on energy consumption, interutility purchases and sales and how the utility computes its necessary "system reserve margin and the appropriateness of the margin." Id. at §2.207B(9). The utility must also present "the assumptions made regarding . . alternative sources of energy, . . . future prices . . . and (their) effect . . . on the utility's system demand, . . . the effect of existing energy conservation programs . . . and any other factor considered by the utility in preparing the forecast." Id. at §3(b). Finally, the regulations require explicit consideration of planning and coordination with "other systems," notably "power pools or coordinating organizations." Id. at 4(a). See also Id. at §2.0210D and F regarding interconnections. The information required in these forecasts is essentially the same as that for the individual utility power plant applications for Certificates of Need.

III. Timing and Stages in Power Plant Decision-making:

All forecasts and determinations and need are made within the context of a public hearing process. Although the statute appears to impose a strict deadline "within six months of the submission of an application, the director shall approve or deny a Certificate of Need for the facility," Minn. Stat. §116H.B sub. 5, in fact, the MEA views the deadline as discretionary rather than mandatory. According to the MEA, "there have been cases in which even the Hearing Examiner's Report was not issued in six months." Other deadlines are based on the agency's procedural rules and the contested case rules of the Hearing Examiners. See *Id.* §15.052, sub. 4, and 9 MCAR 22.201 *et seq.*, as well as Minn. Rules EA500-520.

DAY		ACTION
0	--	Application for Certificate of Need is filed with MEA.
15*	--	Applicant notified whether application is complete as filed--if not, applicant must submit a supplement and clock starts over.
16	--	Hearing Examiner requested by Director.
20	--	Director issues Order for Hearing and Notice thereof, giving dates and locations of hearings and setting intervention deadlines.
50	--	Deadline for intervention; Order to Hearing and Notice thereof published in State Register; paid ads published in newspapers of general circulation.
60	--	Director's staff ("if it so elects") issues a report listing areas to be covered in detail at the public hearing.
80*	--	Hearing commences.
100	--	Hearing concludes.
120*	--	Parties to file proposed findings and briefs.
150	--	Hearing Examiner issues recommendations to the Director.
160*	--	Parties to file exceptions; they must be given ten days to do so.
180	--	Director issues final decision on application.
210*	--	Administrative appeal period expires.

IV. Practice and Procedure:

As stated above, the licensing proceeding is open to intervention by the MEA, together with "any Federal, state, or local agency with authority to grant permits . . . (regarding) large energy facilities." *Id.* at EA 506(a). Mandatory parties are the applicant and any EA 506 intervenor. *Id.* at EA 507. The EQB, PSC, and Pollution Control Agency and the DNR have not generally intervened in these proceedings, although authorized to do so. Occasionally the Pollution Control Agency has intervened. Public interest groups and others wishing to become parties must file petitions describing their interest, their "position" on the application, the names of their witnesses, and an "exchange of documentary evidence," Id. Others may also take part as limited participants by submitting oral or written statements. Minn. Rules EA 507(b).

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* Actions for which there is a time guideline or deadline specified either in the statute or in the applicable administrative rules. The other dates were selected by the MEA to enable completion of the Director's decision within the alloted six months. A separate proceeding before the EQB for a Certificate of Site Compatibility must be completed within one year. Minn. Stat. §116C.57.

There is no role provided for a public counsel although the Administrative Procedures Act, Minn. Stat. ch. 15, states that the MEA director shall designate an MEA employee to facilitate citizen participation. Although this committee has no set role in the Certificate of Need proceedings, it could participate if it wanted to. Minn. Rules EA 507(a).

V. Projected Construction:

There are currently no pending power plant applications. Two facilities have recently been certified, an 800 MW coal-fired facility to come on-line in May 1985 and a 500 MW coal-fired facility to come on-line in November 1986. The MEA knows of only two applications to be filed in the next two or three years. One would be for 400 MW in one or more units; the other would be for a 200 MW facility to be used in a Twin Cities' district heating plan.

Mississippi

I. Basic Regulatory Approach:

The Mississippi Public Service Commission ("PSC") exercises regulatory authority over the certificated service areas of investor-owned utilities, cooperatives, and over that portion of municipally-owned utilities located one mile or more from the corporate limits of municipalities as they existed on March 29, 1956. Miss. Code Ann. §77-3-5 (1972). The PSC consists of three members, each elected from a Supreme Court district. The commissioners serve four-year terms. Id. at §77-1-1. The statute requires persons desiring to construct an electric power plant to obtain from the PSC a Certificate of Public Convenience and Necessity. Id. at §77-3-11. There is no specific mention of need for power or choice of technology considerations. Similarly, in determining a utility'a rate base, "the commission shall give due consideration to all elements that are generally considered in the rate base for ratemaking purposes." Id. at §77-3-43. Thus, the PSC appears to have broad, unfettered discretion in deciding whether to address need for power and choice of technology issues.

While Mississippi law does not specifically require the PSC to consider load forecasts in assessing an applicant's proposal to construct a new power plant, in practice, the PSC does view them as an important part of the analysis employed in certification proceedings. Prospects for load management and conservation are also reviewed as possible alternatives to new power plant construction.

II. Demand Forecasting and Planning:

The statute does not require utilities to undertake demand forecasts, nor is the state directed to develop an independent forecast. The PSC has indicated that, in practice, an evaluation of projected demand is an important facet of the power plant licensing process. There are no formal mechanisms for review of the utility's forecast.

III. Stages in Power Plant Decision-making:

The Mississippi statute does not set time requirements for the permitting process. A hearing is required prior to certificate issuance, but in "an emergency to assure maintenance of adequate service," a temporary certificate may be issued without a hearing. Id. at §77-3-13.

IV. Practice and Procedure:

A. Public Participation:

The PSC routinely allows intervenors in practically all certification proceedings and the Rules of Practice and Procedure of the Commission expressly provide for intervention under Rule 1J. Additionally, although the state does not have an institutionalized office of consumer advocacy, it feels that the public interest is represented through the PSC counsel.

B. Procedures:

The PSC has promulgated rules and regulations which govern proceedings relating to electric utilities. Additionally, the statute contains provisions requiring advance notice of PSC hearings. Id. at §77-3-47.

V. Projected Construction:

Seven power plants are projected for construction. The total projected new capacity is 7302 MW. Four of the new plants will be nuclear and three will burn coal. U.S. Department of Energy, Inventory of Power Plants in the United States (December, 1979). All of the new plants have been delayed, although, according to the Commission, none of the plants have been delayed for regulatory reasons.

Missouri

I. Basic Regulatory Approach:

Missouri employs a traditional system of utility regulation. Utilities seeking to construct new power plants must obtain a Certificate of Public Convenience and Necessity from the Public Service Commission ("Commission"). Mo. Stat. Ann. (Vernon) §393.170. The Commission also exercises control over the sale of securities, standards of service, and accounting methods. Id. at §§393.180, 393.140 and 393.200. Generally, municipally-owned utilities are exempt from Commission regulation. However, when municipalities act jointly, their utilities are treated as if they were investor owned (and subject to Commission regulation). Id. at §393.700 et seq. Since the Commission may not veto the actions of state or local agencies, environmental and zoning laws are not preempted by the issuance of a Certificate of Public Convenience and Necessity.

There is no express statutory provision regarding need for power or choice of generating technology. The extent to which these considerations are factors in utility regulation in Missouri is unsettled; the Commission has, however, sought to exercise authority based upon its general regulatory jurisdiction. In 1979, it sought a suspension of the Nuclear Regulatory Commission's ("NRC") construction permit for the Callaway Nuclear Unit #2 contending that there was insufficient need for the facility. The Commission cited its ratemaking and certificating powers as authority for its action. In re Union Electric Company, Request for Instituion of Proceedings pursuant to 10 C.F.R. §2.202 to Suspend Certification Permit at 3. The staff initiated case EO-80-57 which involves, among other things, petitioning the NRC to defer to state determinations on need. The staff is also currently seeking to exclude an 850 MW coal unit from Kansas City Power and Light Company's rate base on the grounds that it is not needed.

It is difficult to determine the extent to which issues of concern to this study are determined by the Missouri regulatory apparatus. The Commission, operating under vague statutory authority, has attempted to actively pursue these issues, though the ultimate determination concerning the validity of their action lies with the courts. The Missouri Legislature has had a siting bill pending before it for eight years.

II. Demand Forecasting and Planning:

While niether the statute nor available regulations expressly require utilities to prepare load forecasts, it is clear that, in fact, forecasts are a prerequisite to power plant approval. The staff prepares independent forecasts and evaluates the relative merits of the staff and utility forecasts. See, e.g., Haigh, Preliminary Union Electric Company Peak Demand Projection, Table I (comparing utility and staff forecasts).

According to NRC's Need for Power Review, energy conservation is given primary consideration in licensing decision-making. Power pool considerations are given only secondary consideration. Load management and alternative energy resources are not considered.

III. Timing and Stages in Power Plant Decision-making:

There are no time limits on the Commission's process for issuing a Certificate of Public Convenience and Necessity. Mo. Stat. Ann. §393.170 (Vernon).

IV. Practice and Procedure:

Interestingly, the statutes do not require public hearings prior to the issuance of a Certificate of Public Convenience and Necessity. *Id*.

A public counsel represents the interests of the public at "any proceeding", though he has discretionary power to decline to participate. *Id*. at §386.710. Among the duties of the Commission's counsel is to "represent the public in all rate hearings. . . ." *Id*. at §386.080. He may even represent one interest in a matter and, where there are "conflicting public interests," retain outside counsel for other interests. *Id*. at §386.710(3).

V. Projected Construction:

Missouri has 24 units projected for construction with a total capacity of 5,903 MW. Thirteen units will burn oil, five will be coal fired, two nuclear, and two hydroelectric. U. S. Department of Energy, *Inventory of Power Plants in the United States* (December 1979).

Montana

I. Basic Regulatory Approach:

Montana has enacted comprehensive energy facility siting legislation which regulates other energy industries, in addition to electric utilities. See, Montana Major Facility Siting Act, 1973 Mont. Laws ch. 327, codified at Mont. Codes Ann. (M.C.A.) §75-30-101 et seq. The Montana procedure is essentially a three-stop process. The Facility Siting Division of the Department of Natural Resources and Conservation ("DNRC") undertakes the investigation and study of proposed utility sites and monitors the operation of utility facilities. Mont. Admin. Code §36-2.1-0100. The Board of Natural Resources and Conservation ("Board") is a quasi-judicial entity with authority for approving facilities under the Act. The structure of the Board and its enabling authority are provided by statute. See, Mont. Codes Ann. §2-15-3302. The Public Service Commission ("Commission") is empowered with the "full power of supervision, regulation, and control over (electric) utilities . . . to the exclusion of the jurisdiction, regulation, or control by any municipality, town, or village." Id. at §69-3-102. The Commission, however, does not have a major role in the siting process.

No capacity may begin construction of a plant designed for or capable of generating 50 MW or more of electricity without first obtaining a Certificate of Environmental Compatability and Public Need from the Board. Id. at §75-20-201. State air and water quality agencies require additional permits to certify compliance with their respective standards. Id. at §75-20-401. These permits must be issued prior to a decision by the Board. Id. at §75-20-216(3).

The role of the Commission in the siting process is limited to preparation and submission of an advisory report to the Department presenting any information it has on the proposed application within its field of expertise. Id. at §74-20-216(5). Although it is not a major actor in the siting process, the Commission retains its traditional regulatory functions which can seriously affect decisions based on need for power. For example, the Commission is charged with the duty to ensure that rates are "reasonable and just." Id. at §70-105. This provision can be read as allowing the Commission to inquire into the prudence of adding new generating capacity, and review of the technologies chosen.

The utility's certificate application is required to address, inter alia:

- the need for the facility Id. at §75-20-211;
- the criteria utilized by the applicant in determining that the facility is necessary to meet the requirements of its customers;
- research activities of the applicant utility relating to new technologies available to it to minimize environmental and economic impact;
- opportunities for energy intensive industries or other activities to utilize the waste heat from the facility; and
- energy use data of the energy form to be produced for the 20 years preceding the year of the application and a projection of such use for the ensuing 20 years. Projections of load growth are required to include historical load growth, growth in the number of customers, and economic indicators. Mont. Admin. Code §§36-2.8(2)-810 et seq.

Overall, it is clear that Montana has established a system for the express consideration of need for power choice of technology, and related energy and environmental issues. Factors to be considered by the Board in assessing a utility's application to construct a power plant include:

- energy needs;
- growth in demand projections of need;
- availability and desirability of alternative sources of energy;
- availability and desirability of alternative sources of energy in lieu of the proposed facility;
- conservation activities that could reduce the need for for more energy; and
- consistency with land use plans and environmental impacts. Mont. Codes Ann. §75-20-503.

The Major Facilities Siting Act can also be interpreted as providing authority for state agencies to determine which technologies best fit the need. The findings suggest that the siting process must include consideration of the effects of the plant on the environment and, more broadly, upon the welfare of the citizens of the state. Id. at §75-20-102. While less than explicit, the Act appears to grant more than sufficient authority for the review of a utility's generating choice. (It remains to be seen how this discretion will be exercised.)

Regarding proposed new nuclear power plants, there are additional review requirements established by a recent amendment. The Board may not issue a certificate permitting construction of a nuclear power plant until it has been approved by a majority of voters in a statewide election called by initiative or referendum. Id. at §75-20-201.

An unanswered question is what the state's policy should be toward the "export" of electricity and the treatment of power needs in other states. In a recent case (Colstrip*) raising this issue, the DNRC recommended against approval, but the recommendation was not accepted by the Board.

II. Demand Forecasting and Planning:

Paralleling the requirements of the siting process, Montana requires utilities contemplating the construction of a facility within the state to prove that there is a need for the plant. Id. at §75-20-501. Such utilities are required to submit an annual report to the DNRC containing:

- a description of efforts by the utility to coordinate the plan with other utilities so as to provide a coordinated regional plan for the energy needs of the region;
- projections of demand for the service rendered by the utility and the explanation of the basis for those projections and a description of the manner and extent to which the proposed facilities will meet the projected demand;
- a description of efforts to involve other agencies in the planning process;

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* See, N. Wengert and R. Lawrence, Regional Factors in Siting and Planning Energy Facilities in the Eleven Western States II:49-51 (1976).

- an assessment of regional needs, including a discussion of the export/import of power; and
- a description of the possible alternatives (including conservation) to planned expansion. Id. at §75-20-501.

The statute requires the DNRC to review the plan employing the same criteria that are employed in scrutinizing power plant certification applications. Id. at §75-20-503. See discussion, supra. The state does not develop its own forecast of demand levels. Therefore, the method by which it validates the utility plan is unclear.

III. Timing and Stages in Power Plant Decision-making:

0 days	Receipt of the application by the DNRC.
Within 90 days	DNRC is required to evaluate the application to determine if it is in substantial compliance with the statute and regulations promulgated thereunder. Id. at §75-20-216.
Within 120 days after receipt of the DNRC report	The Board must set a date for a hearing on the application. Id. at §75-20-218.
Within 60 days of submission of hearing examiner's recommended decision	The Board shall make findings. Id. at §75-20-301.
Within 22 months after acceptance of an application	DNRC shall report to the Board giving its evaluation of the proposed project and listing its recommendations. Id. at §75-20-216(4).

IV. Practice and Procedure:

A. Public Participation:

Montana law provides for a consumer counsel with the power and duty to institute and appear at Commission proceedings. Id. at §70-707. The counsel also has broad investigatory powers. Id. The literal language of the statute provides for the counsel only at Commission proceedings; there is no authority for the counsel to appear at siting proceedings before the Board, though he/she might qualify under Montana' liberal standing rules.

The Board is required to hold a public hearing on the utility's application. Parties to the proceedings include, among others, "any interested person who establishes an interest in the proceeding." Id. at §75-20-221.

B. Procedures:

The contested case procedures of the Montana Administrative Procedure Act apply to the hearing conducted by the Board. Id. at §75-20-222. By regulation, the DNRC has adopted the Attorney General's Model Procedural Rules 1 through 38. Mont. Admin. Code §36-2.2(1)-P200.

C. Coordination:

In preparing its recommendations, the Department consults with seven other state agencies: the Departments of Health and Environmental Sciences, Highways, Community Affairs, State Lands, Revenue, Public Service Regulation, and Fish, Wildlife and Parks. The Departments are required to submit a report to the DNRC detailing the impact of the proposed project on each Department's area of expertise. *Id.* at §75-20-215. The report may include opinions as to the advisability of granting, denying, or modifying the certificate. *Id.*

V. Projected Construction:

As of April 1979, there were no proposed projects in Montana. U. S. Department of Energy, *Inventory of Power Plants in the United States* (April 1979). Only two plants have ever been considered under the process. They were certified in 1976. Construction has been delayed by litigation.

Nebraska

I. Basic Regulatory Apprcach:

Unique among the states, Nebraska restricts electric utility service to public entities, either public utility districts or municipal utilities. See Neb. Rev. Stat. §70-601 et seq. Public utility districts have powers comparable to privately-owned utility corporations in other states, except that their boards of directors are publicly elected. Thus, public entities make initial "utility" decisions on power plant need, size, type, and location, subject to electoral review. The Nebraska Power Review Board ("Board") also reviews decisions to construct facilities. The Board must approve any proposed generating facility, or power line carrying more than 700 volts, prior to construction. Id. at §70-1012. The Board also makes an express finding of public convenience and necessity without "unnecessary duplication of facilities" prior to approval. Id. at §70-1014. Prior to construction, the Public Service Commission approves the safety of power lines in excess of 700 volts. Id. at §75-719 et seq.

The Public Utility District alone makes the choice of technology decision. Consequently, the Board only determines who will build and should a plant be built, not what kind of generation construction would occur.

II. Demand Forecasting and Planning:

In the context of generating facility approval, adjudicatory hearings are held to determine that no "unnecessary duplication of facilities" will result, that the public convenience and necessity will be served, and that the applicant can most economically and feasibly supply the service. Id. at §70-1-14. This encompasses the need for power determination. Long-range forecasts must be submitted with the application. The Power Review Board response to ABA survey. Alternative sources of energy, conservation, peak load pricing, and load management are not given primary consideration of the Board. NRC Need for Power Review, Neb. Rev. Stat. §70-1013. The Board, in its annual report, published a peak load forecast prepared from utility district forecasts.

III. Timing and Stages in Power Plant Decision-making:

0 days	Application filed, time and place for hearing set.
10 days	Notice to alternative power suppliers.
30-90 days	Hearing within 30 days, unless cause shown by applicant.
120 days (within 30 days after hearing)	Decision by the Board.*

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* In practice, this process seldom takes 120 days. It may be completed in as few as 30 days.

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IV. Practice and Procedure:

The statute generally requires a hearing prior to power plant approval, but the Board may waive it if in its judgment the findings required can be made without one. Neb. Rev. Stat. §70-1013. These certification hearings are adjudicatory.

When hearings are held, any "interested party (may) appear, file objections, and offer evidence." Id.

No public advocate is provided by the state.

V. Projected Construction:

According to the Board, six power plants are currently projected for construction in Nebraska. Two are hydroelectric and four are coal. Three of the coal plants are now under construction.

Nevada

I. Basic Regulatory Approach:

While there are several state agencies clothed with responsibilities over need for power and choice of technology issues in Nevada, the process is dominated by the Public Service Commission ("PSC") whose decision on applications for approvel of new facilities is dispositive.

A. Public Service Commission:

The PSC regulates the general operation of utilities in Nevada. The structure, composition, and authority for the PSC are set forth in the statute. Nev. Rev. Stat. §703.019 et seq. Municipal utilities are not subject to PSC regulation. Id. at §704.860. Utilities desiring to construct a power plant must apply to the PSC for a certificate regardless of the size of the plant. The utility must include an explanation of the need for the facility in its application. Id. at §704.870. The mandatory criteria for the PSC decision on the application include: (1) examination of the need for the facility; (2) decision on the nature of the probable environmental impact; (3) a finding that the facility represents the minimum adverse environmental impact considering the state of available technology and the nature and economics of various alternatives; and (4) that the facility will serve the public interest. Id. at §704.890.

Need for power is considered directly by the PSC through its lead role in the siting context, but similar considerations are also employed in passing on utility rate proposals. Additionally, the PSC is given the broad authority to "analyze and evaluate present and prospective energy demand and supply alternatives." Id. at §730.260.

In short, Nevada statutes provide ample authority and discretion to enable the PSC to determine need and to choose among alternative technologies.

B. State Environmental Commission ("Commission"):

The Commission is an entity within the state Department of Conservation and Natural Resources which reviews permit applications of utilities. See Id. at §455.451.

C. Energy Resources Advisory Board ("Board"):

Consisting of 15 members (one of whom is required to be from the PSC), the Board is required to (1) recommend a state energy policy, including legislation and regulations to promote conservation and economical utilization and production of energy resources; and (2) recommend long-range comprehensive plans for energy utilization and to improve the efficiency of energy production. Id. at §523.070.

D. Department of Energy ("Department"):

See Id. at §523.011 et seq. The director of the Department is required to "prepare a state energy conservation plan which provides methods for conserving and improving efficiency in the use of energy resources and establishes procedures for reducing the rate of growth in energy demand." The Department also has a mandate to forecast energy requirements and promote the use of renewable resources.

E. The State Engineer:

This office is given the authority to enact such regulations as are necessary to assure the proper development, control, and conservation of Nevada's geothermal resources. The engineer also makes a determination regarding the availability of water resources for power plant operation.

F. Department of Human Resources ("DHR"):

By statute, the DHR is entrusted with final authority over the development and enforcement of all pollution standards. Id. at §445.344.

In summary, the PSC is the lead agency on power facility permitting, while numerous other agencies retain wide power to influence the process.

II. Demand Forecasting and Planning:

Although utilities are required to file annual reports, Id. at §704.180, and yearly revenue reports, Id. at §704.035, there is no explicit statutory provision that requires demand forecasting. In actual practice, the PSC has construed its general regulatory power to include the power to require ten-year forecasts of demand levels. In addition to its load forecast, the utility is required to describe its forecasting methodology, assess regional needs, and discuss alternatives to the project. Although the PSC does not develop its own forecasts, it employs independent consultants to evaluate the utility forecasts. The extent to which the long-range plan required by the Board addresses need for power and choice of technology issues is uncertain.

III. Timing and Stages in Power Plant Decision-making:

There are no statutory time limits pertaining to the process itself. Aggrieved parties must file for a rehearing within 15 days of the issuance of an order. Petitions for judicial review must be filed within 30 days of the filing of the final order. Id. at §704.895.

IV. Practice and Procedure:

A. Coordination:

The PSC is empowered to coordinate activities of the relevant state agencies, Id. at §703.260, and to cooperate with Federal departments and agencies. Id. at §703.260. The statute requires that a copy of a utility's application to construct a facility be filed with the Chairman of the State Environmental Commission and with each local government in the area in which any portion of the facility is to be located. Id. at §704.870.

The PSC's determination of need preempts local jurisdictions. It is also binding on those governments (if they were properly served) and the State Environmental Commission. The latter body reviews all applications for permits and is granted standing (as a party) in the hearings. See also discussion of the Energy Resources Advisory Board, supra.

B. Public Participation:

The PSC has a Division of Consumer Counsel. The statute grants liberal standing to interested persons. Environmental groups and any interested person living in a local government unit in which a portion of the plant will be sited have standing. Id. at §704.885.

V. Projected Construction:

There are nine projected power plants in Nevada representing total additional capacity of 2,940 MW (two gas and seven coal). Eight of the units have been delayed a year or more. The primary cause of the delay has been financial or economic conditions; adminstrative delays have not posed substantial problems for Nevada utilities.

New Hampshire

I. Basic Regulatory Approach:

Power plant siting in New Hampshire is the dual responsibility of the Bulk Power Supply Facility Site Evaluation Committee ("SEC") and the Public Utilities Commission ("PUC"). The SEC is comprised of 13 agency directors, including the chairman of the PUC. The SEC chairman is the director of the Water Supply and Pollution Control Commission. The PUC is a three-member board appointed by the Government with the advice and consent ot the Senate. The SEC and PUC collectively oversee long-range plans required of utilities and also decide on applications for certificates required to construct new power plants. The proceedings of the two bodies are controlling on all other affected agencies, including municipalities. N. H. Rev. Stat. Ann. §162-F:2(I)(c)(u).

Need for additional capacity is determined by the PUC pursuant to traditional statutory authority: Section 374:1 provides that "every public utility shall furnish such service and facilities as shall be reasonably safet and adequate and in all other respects just and reasonable;" Section 374:3 provides that the PUC shall have general supervisory authority over "all public utilities and the plants owned, operated, or controlled by the same, so far as necessary to carry into effect the provisions of this Title."

Regarding the choice of technology to meet demand levels, the PUC considers this issue to be a matter of "utility responsibility" under the traditional "management prerogative" doctrine. The PUC, therefore, accepts whatever generating technology and unit size the utility wishes to employ.

II. Demand Forecasting and Planning:

One finding in the siting statute is that "in order to avoid undue delay in construction of needed facilities and to provide full and timely considerations of environmental consequences, all electric entities in the state should be required to engage in adequate lon-range planning and provide full and complete disclosure to the public of such plans." Id. at ch. 162-F:1. To fulfill this objective, every utility is required to prepare annual long-range plans for bulk power supply facilities pursuant to guidelines established by the PUC with the approval of the SEC. Id. at ch. 162-F:4. Plans must describe the location, size, and type of any additional facilities projected for at least the next ten years (15 years if required by the PUC). The statutory requirements for information refer primarily to environmental and land use information, but the SEC may require any additional information considered necessary. The plans must also include demand projections. Notice and copies of plans are to be sent to affected state and local authorities and interested parties.

Following plan submission, the SEC is required to hold public hearings within 90 days of the filing to decide whether any plant proposed for the next five years should be approved for a site inventory. The decision must be made within six months of filing and is to be based on whether construction would "unduly impair important environmental values." Id. at ch. 162-F:5 (III).

A separate generic evaluation process exists for nuclear facilities. Id. at ch. 162-B.

III. Timing and Stages in Power Plant Decision-making:

At least two years prior to construction of any plant 50 MW or larger, utilities are required to apply for a Certificate of Site and Facility. The utility may survey and obtain rights in land, but may not otherwise begin construction. The site must be in the approved inventory barring "good cause." Id. at ch. 162-F:6.

0 days	Utility application for a certificate, including all information necessary for any permits which may be required from any agency and other information as required by the SEC and PUC. Id. at ch. 162-F:7.
0 to 39 days	Notice of a hearing.
60 days	Hearing, under auspices of SEC and PUC, to be held jointly with all other affected agencies in the county or counties of the proposed site; an initial session is to be information only; subsequent sessions at unspecified times are to be adversarial in nature.
14 months	SEC reguls (by majority vote) as to whether the proposed facility will not unduly interfere with the orderly development of the region with due consideration having been given to the views of municipal legislative bodies; also as to whether there are "unreasonable" adverse environmental effects. Id. at ch. 162-F:8.
16 months	The PUC must issue or deny the certificate. In its determination, the PUC is bound by the conclusions of the SEC, but must find that the facility, in addition, is "required to meet the present and future demand for electric power" and will not adversely affect system stability. Id. at ch. 162-F:8. When issued, the certificate is final and is to include all conditions and requirements necessary to satisfy the requirements of other agencies.

IV. Practice and Procedure:

A. Public Participation:

Notification and hearings are provided for both the annual plans and certification applications. In addition, a public counsel is appointed by the Attorney General to represent environmental interests for the "duration of certification proceedings." Id. at ch. 162-F:9. The public counsel is to accord all rights of a party to a formal action.

New Hampshire also has an innovative institution, the Legislative Consumer's Council, which has responsibility for promoting consumer interests in any appropriate proceeding. Id. at ch 363-C. The council is comprised of eight legislators and may undertake studies and contract for expert testimony to further consumer positions. The counsil also appoints an attorney as consumer advocate. The consumer advocate may intervene in any proceeding concerning utility rates, charges, tariffs, and consumer services, and may employ a deputy and other assistants. Id. at ch. 363-C:9.

B. Coordination:

The siting statute provides that "the siting of bulk power plants . . . should be treated as a significant aspect of land use planning in which all environmental, economic, and technical issues should be resolved in an integrated fashion; that existing laws do not provide an adequate procedure for the coordination of reviews . . ." *Id.* at §162-F:1. To this end, the Site Evaluation Committee was established (discussed *supra*).

V. Projected Construction:

Seabrook 1 and 2, both nuclear units rated at 1,150 MW, are the only additional facilities currently projected in New Hampshire. Both have been delayed substantially by litigation, but no effect on system reliability is expected.

New Jersey

I. Basic Regulatory Approach:

New Jersey, like many states, has enacted no broad-based legislation expressly providing for determinations of need to govern construction of power generating facilities. Its statutes and regulations are equally silent on review of alternative power sources and alternatives to construction of power plants. Indeed, unlike the great majority of other states, the state Board of Public Utilities ("BPU") does not require utilities to apply for an receive a Certificate of Convenience and Necessity before beginning the financing and construction of facilities. The general regulatory basis of the BPU, however, could conceivably permit the promulgation of regulations establishing a certification process. See e.g., N. J. Stat. Ann. §48:2-12 (West) (power to adopt regulations), §48:2-13 (granting the Board powers of "general supervision and regulation of and jurisdiction and control over all public utilities . . . and their property, property rights, equipment, facilities and franchises so far as may be necessary . . ."); and §48:2-23 (giving the BPU power to order utilities "to furnish safe, adequate, and proper service, including . . . service in a manner that tends to conserve and preserve the quality of the environment. . . .").

To the extent that these matters are reviewed, it appears to be within the context of traditional rate regulatory proceedings at the time the utility seeks either financing approvals or the inclusion of the completed facility with its "rate base" for rate making purposes.

Additionally, other mechanisms are employed to decide these issues. The Board apparently exercises control over choice of generating technology informally (e.g., in 1972 the Board directed a utility to construct gas turbines as an alternative to purchasing power in order to meet peak demand on the theory that the former alternative would result in cheaper and more efficient service). In 1976, the BPU (then called the Public Utilities Commission) also embarked upon a series of investigatory hearings into electric utility construction programs. The hearings considered long-range load forecasting, choice of alternative sources of power and proposed standards of reliability and reserve margins. They have, to date, produced one stipulation of agreement in the area of load forecasting, but no explicit orders or determinations with respect to any particular facilities or alternatives.

A second agency important in this area is the recently created Department of Energy ("DOE"). Chapter 146 of the Laws of 1977, Id. at §52:27F-1. The DOE, as provided in the legislative statement of purposes, is to serve as "a principal department . . . to coordinate authority, regulation, and planning by the state in energy-related matters." Id. at §52:27F-2. The BPU has been located within DOE, but is "independent of any supervision or control by the Department. . . ." Id. at 27F-5. Consequently, it is unclear how their respective powers mesh. Nonetheless, the DOE does have significant powers "coextensive with that of any other state instrumentality" where energy siting of any kind is concerned. When another agency considers a siting-related application, the matter is referred to the DOE's Division of Energy Planning and Conservation ("DEPC") for its review and comments. The statute then provides for a complicated process of review, veto, and decision:

> Prior to making a final decision with respect to any (energy) application, the state instrumentality with power of approval over such application shall solicit the views of the (DOE). Such views shall be communicated to the state instrumentality . . . in the form of a report describing the finding of the Department. . . . Such report shall be prepared by the Director of the (DEPC) and shall be signed by said director and by

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> the commissioner. In the event that the views of the Department, as contained in its report . . . differ from the views of the state instrumentality, there shall be established an Energy Facility Review Board which shall consist of the Director of the (DEPC), and the director . . . of the state instrumentality with the power of approval . . . and a designee of the governor. The decision of the Energy Facility Review Board, created with respect to a specific energy facility application, shall be binding with respect to such facility and shall be implemented forthwith. *Id*. at §52:27F-13C.

Thus, it appears that final authority over energy-producing facilities, including electric power plants, is lodged in this *ad hoc* body of indeterminate membership. Presumably, it is here that decisions on *need and* alternatives ultimately would be made or at least reviewed--but only if the DOE and another state agency previously disagreed openly and officially on an energy facility. There is no record of this occurring as of yet.

II. *Demand Forecasting and Planning*:

While neither the New Jersey BPU and the DOE has regulations governing utility planning, load forecasting, or consideration of alternatives, the BPU has moved to provide some direction in this area. On February 28, 1979, the BPU issued a "Decision and Order" approving a stipulation of parties to a generic proceeding (independently initiated by the Board three years earlier) on electric utility planning and construction. *In Re the Board's Order of Inquiry Into the Reasonableness of Electric Utilities Construction Program*, Docket No. 762-194. This stipulation--signed by the BPU's staff, the electric utilities, and the Public Advocate--provides a general listing of the factors to be considered in forecasting, but suggests no standards for determining the relative weight to be applied to them. Similarly, the stipulation suggested no criteria for determining when or if certain factors apply. Rather, after stating that the "process varies from utility," it concludes with the following:

> Load forecasting is primarily the responsibility of (utility) management, and this Order in no way relieves management of this duty.

Additionally, as to how the public will be protected:

> This Order shall not be construed as (BPU) approval of specific elements of the respective electric utility construction program. *Such approval will continue to be made in the rate proceedings of each company or in other proceedings which the (BPU) may deem to be an appropriate forum*. Decision and Order, at 6 (emphasis added).

In short, the generic hearing concludes with the finding that the jurisdiction for power plants will be reviewed on an *ad hoc* basis depending upon utility financial needs. The BPU's staff takes the position that need *is* addressed in the site-specific proceedings since, in addition to financial needs of the utility, projected customer demand is a factor which is considered.

To date, the only nonutility long-range forecasting has been done by the state Public Advocate.* *See* testimony of Dubin-Bloom Associates, *In Re PSE&G*, Docket No. 761-8, entitled: *A Study of Electrical Energy Usage in the PSE&G Service Territory*, June 30, 1976.

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* This is somewhat surprising in light of the origins of the so called construction hearings. At the conclusion of a major rate case filed by the state's largest utility, PSE&G, the parties agreed not to make PSE&G's construction plans an issue on the understanding that this would be done in a generic hearing. Apparently, this decision reflects (1) the introduction into evidence by the Public Advocate on behalf of consumers of an unprecedented alternative load forecast to challenge the utility's need to attract capital; and (2) the eight-month time limit on rate cases, which, the parties agreed, was not enough time to make decisions on power facilities.

III. Timing and Stages in Power Plant Decision-making:

Lacking any program for certification there are no timing requirements or deadlines for decisions, save the eight-month limitation for the conduct of utility rate cases. N. J. Stat. Ann. §48:2-16.

IV. Practice and Procedure:

In rate cases and in other proceedings before the BPU, the public is represented by the Public Advocate. *Id.* at §52:27FE-1 *et seq*. Additionally, the BPU liberally grants intervention to petitioning parties.

V. Projected Construction:

As of December 1979, New Jersey utilities projected the construction of an additional ten units totalling 5,840 MW. Of these planned units, two (Hope Creek 1 and 2) have been delayed by prolonged procedures to obtain necessary permits, changes in regulatory requirement, and revised load forecasts. Another unit (Forked River) was listed as delayed due to changes in regulatory requirements, financial or economic problems, and revised load forecasts. U. S. Department of Energy, *Inventory of Power Plants in the United States* (December 1979).

New Mexico

I. Basic Regulatory Approach:

The preamble to New Mexico's Public Utility Act states that it is the "declared policy of the state that the public interest and the interest of consumers require that (the law) provide for the construction, development, and extension, *without unnecessary duplication and economic waste*, of proper plants and facilities for the rendition of service." N. M. Stat. Ann. §62-3-1 *et seq*. (Emphasis added). This general standard appears to be the primary statutory criterion constraining power plant construction.

Utilities desiring to begin construction of a power plant are required to obtain a Certificate of Public Convenience and Necessity from the Public Service Commission ("PSC"). *Id*. at §62-9-1. The composition, structure, and authority of the PSC is established by statute. *Id*. at §62-5-1 *et seq*. The PSC has jurisdiction to review the location of all utility facilities. It does not preempt other state or local agencies unless their provisions are "unreasonably restrictive." *Id*. at §62-9-3. Although New Mexico statutes provide general authority for the PSC, that body has interpreted its statutory mandate to permit it to undertake an analysis of the need for additional power in certificating proceedings. Ratemaking hearings provide another forum in which need for power issues may be addressed. Under PSC General Order #33, conservation plans must be considered as well.

Utilities desiring to begin the construction of a power plant designed for, or capable of, operation at 300 MW or more must obtain a certificate from the PSC certifying that the plant is compatible with the environment. *Id*. at §62-9-3. This certificate is in addition to the Certificate of Public Convenience and Necessity required by §62-9-1. It is the vehicle through which New Mexico addresses the choice of generating technology.

New Mexico has also enacted progressive legislation designed to promote alternative technologies. The Energy Research and Development Act of 1975 (*codified at Id*. at §71-4-1 to 7 *et seq*.) was enacted to "provide the means to seek solutions to fuel and energy problems through energy research and development . . . in the fields of wind, solar, geothermal, fossil, nuclear, and all other energy research, including the improvement of recovery techniques from existing fossil fuel reserves." The Act also created a Board, independent of the PSC, to review and coordinate research programs. It is unclear, however, whether the Board has had any influence or success in promoting these technologies.

Similarly, the New Mexico Energy Resources Act (*codified at Id*. at §72-2-1 et seq.) was enacted to assure the availability of sufficient power and to develop an energy facility management and conservation program.

The Geothermal Resources Conservation Act (*codified at Id*. at §72-2-1 *et seq*.) requires the Commerce and Industry Department ("CID") to actively promote the development of solar energy within the state. The CID has not yet attempted to take part in PSC hearings.

II. Demand Forecasting and Planning:

Although the PSC may prescribe a uniform system of accounts, *Id*. at §62-6-18, and require utilities to file an annual report and "such other information as the Commission may reasonably require," *Id*. at §62-6-18, there is no explicit statutory authority directing the PSC to require demand planning or load forecasting. This duty, however, would appear to be implicit in the general statutory prohibition against "unnecessary duplication and economic waste" in construction.

In any event, the PSC has required load forecasting as an incident to the broad grant of general power in the statute: ". . . to do all things necessary and convenient in the exercise of its power and jurisdiction." Id. at §62-6-4. The PSC informally reviews submitted forecasts.

In May 1980, PSC adopted General Order #33, specifying requirements for utility conservation plans and load forecasts. A number of variables, including price, weather, rate design, energy resources development, etc., are specified for consideration in utility forecasts.

III. Timing and Stages in Power Plant Decision-making:

The statutes do not require application for certificates to be approved or denied within a fixed time. Hence, there are no time limits and no fixed stages of licensing.

IV. Practice and Procedure:

A. Public Counsel:

There is no statutory provision for a public counsel or other form of legal assistance for consumer or public representative within the PSC. However, the Attorney General maintains a utility division whose primary function is to represent the residential consumer.

B. Coordination with Other State Agencies:

Before it grants the certificate, the PSC is required to ascertain that the project will comply with all applicable air and water pollution standards. Id. at §62-9-3. The PSC is explicitly prohibited from requiring a standard other than that established by the relevant state environmental agencies. Id.

The PSC does, however, have the authority to override local land use statutes and regulations if it finds them to be "unreasonably restrictive." Id.

V. Projected Construction:

As of December 1979, there were eight projected power plants in New Mexico, representing an additional capacity of 1,718 MW. Six units have been delayed. Four of the delayed units are hydroelectric and the other two are coal. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

New York

I. Basic Regulatory Approach:

New York employs a system of regulation which requires explicit consideration of need for power and choice of technology by state regulatory agencies. While an energy planning agency makes the need determination in a generic proceeding, a siting board determines which plants will be constructed to meet a given level of need in site-specific hearings. The actions of both bodies affect utility choice of generating technology in significant ways described below.

A. Energy Planning:

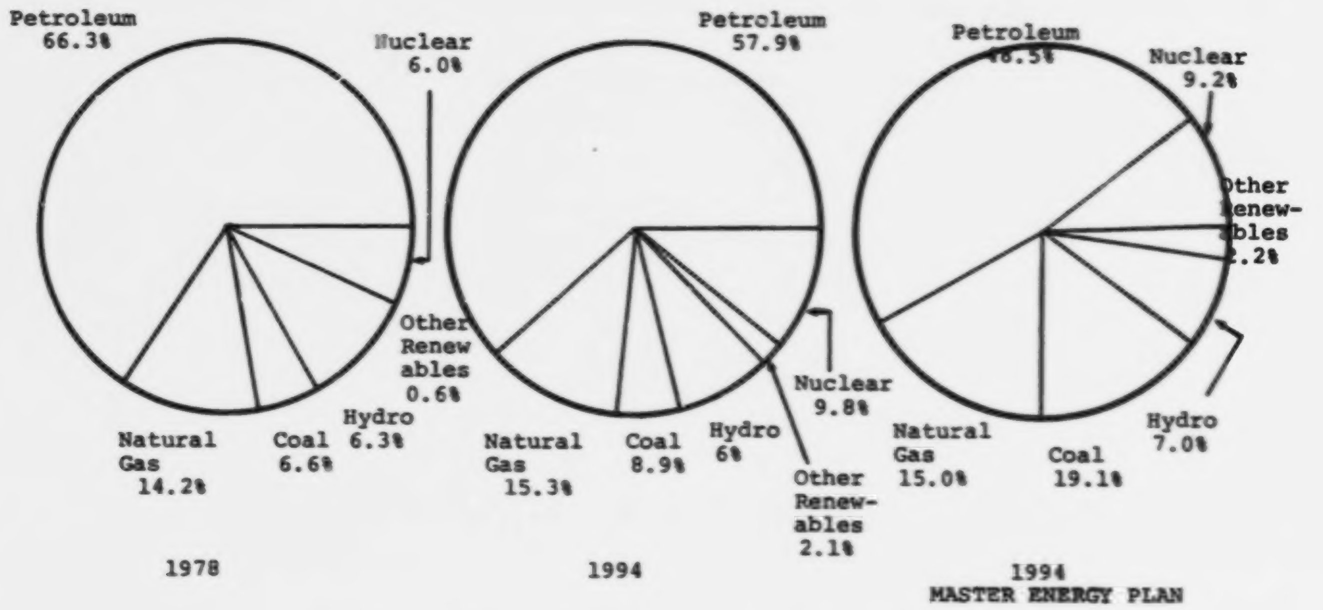
1. Institutional Arrangements - The State Energy Office has the greatest impact on the determination of need for power and the choice of technology to meet that need in New York. N. Y. Energy Law §5-101 (McKinney). The Office, directed by a commissioner with members appointed by the governor, has broad jurisdiction over all persons engaged in the exploration, manufacture, processing, sale, distribution, transportation, refining, generation, and supply of energy and energy resources in the state. Id. The Office is charged with implementing the state's energy policy, which requires that the state shall provide, inter alia, "energy planning in integrated and comprehensive manner through development of long-range energy master plans which shall provide the framework for energy-related decisions throughout the state." Id. at §3-101. The master plan embodies the state's generalized decisions concerning need and technology choice. In preparing the draft plan, the office is required to consider economic growth and development trends as well as the extent to which energy conservation measures and new energy technologies may affect the state's energy requirements. Id. at §5-110. The plan must contain a forecast of state energy requirements for 5, 10, and 15-year forecast periods, a summary of the plans of the state's major energy suppliers for meeting forecasted energy requirements, including descriptions of new energy resources and a statement of specific energy policies and recommendations. Id.

After informal, legislative-style public hearings conducted by the Energy Office, the plan is submitted to the Energy Planning Board ("Planning Board"). The Planning Board, which is a unit of the state Energy Office, is composed of the commissioner of that body, the chairman of the Public Service Commission ("PSC"), the commissioner of environmental conservation, the temporary president of the Senate or his designee, and the speaker of the assembly or his designee. Id. at §10103. The Planning Board is required to conduct on-the-record hearings at three or more geographic locations in the state. Though the hearings are on the record, they are specifically exempted from the New York Administrative Procedure Act contested case procedure--it appears to be a hybrid proceeding. If the Board approves the draft plan, it is adopted by the Energy Office. In the event the Board disapproves the draft plan, the Energy Office is required to redraft the plan in order to conform to the Planning Board's determinations. Id.

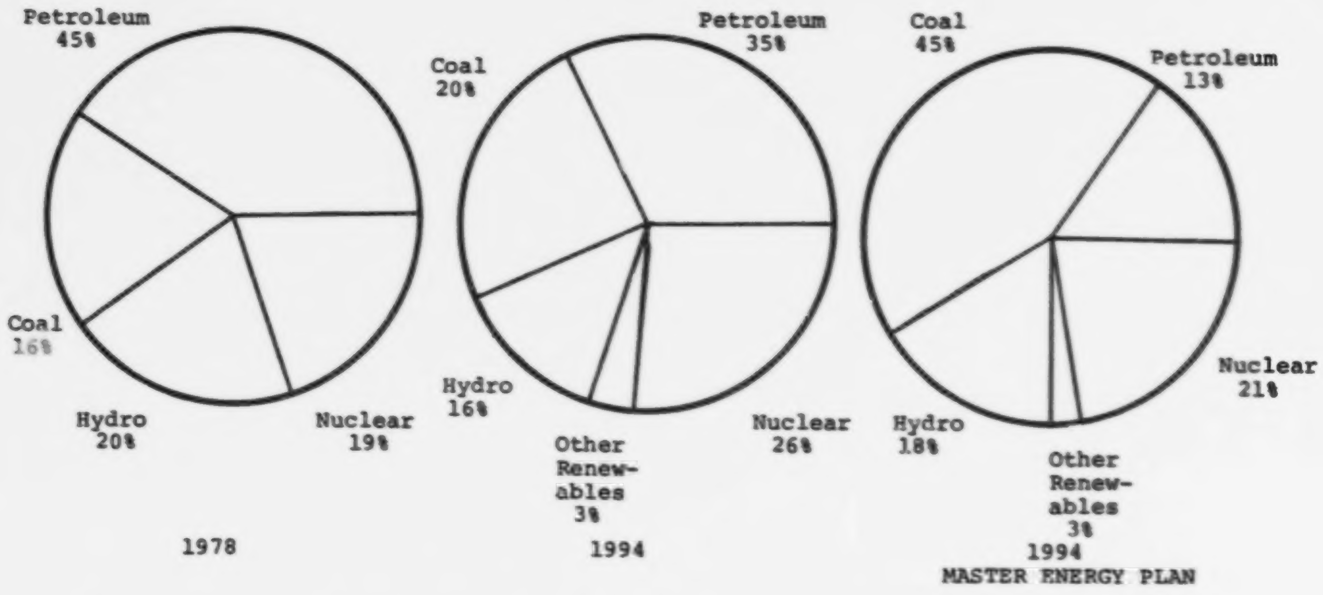
2. The 1979 Draft Energy Master Plan - The planning procedure culminates in the adoption of a master plan which has a significant impact on need for power and choice of technology decision-making. For example, the state's recent decision to allow no new nuclear plants forecloses this technology choice to New York utilities. The plan operates as the major constraint on utility decision-making in the areas of concern to this study. See, New York State Energy Master Plan, New York State Energy Office, August 1979 draft. Much of the plan's import can be discerned from the table entitled, "Total Primary Energy Consumption" (See Table 1).

TABLE I

TOTAL PRIMARY ENERGY CONCUMPTION
New York State 1978 and 1994



PRIMARY ENERGY USED TO GENERATE ELECTRICITY
New York State 1978 and 1994



ex: New York State Energy Master Plan, 18 (1979, Draft).

The plan has important implications for New York's energy policy. The state has developed an energy system which relies oil for two-thirds of its needs. The master plan seeks to reduce use of that fuel by some 540 million barrels of oil over the next 15 years. In a more operational sense, the plan plays an important role in the siting process. (Discussed, infra).

B. Power Plant Siting:

Determinations of need for power and choice of technology form an integral part of the power plant siting process. A basic knowledge of the siting act, its purposes and procedures, is necessary in order to understand the state approach to the issues which are the subject of this study.

The legislative history of the New York Siting Statute (hereafter also called "Article 8") specifies the purpose of that law:

> (A)rticle eight of the public service law was enacted to provide for the expeditious siting of major steam electric generatin facilities. That law was intended to balance, in a single proceeding, the people's need for electricity and their environmental concerns. Prior to Article eight, requirements for a multiplicity of governmental licenses and permits resulted in delays in new construction of such facilities and very substantial cost increases were passed on to electric consumers throughout the state.

1978 N. Y. Laws ch. 708 §1.

Artile eight was first enacted in 1972; it remains the governing law for applications filed before January 1, 1979. The statute was reenacted (with procedural changes) in 1978.* The new version of the article applies to applications filed after December 31, 1978, and before January 1, 1984.

The law is designed to create a one-stop process by lodging all licensing authority in the New York State Board on Electric Generation and the Environment ("Siting Board"). N. Y. Public Service Law §140 et seq. (McKinney). The Siting Board has five members: the chairman of the Public Service Commission ("PSC"), the commissioner of environmental conservation, the commissioner of energy, the commissioner of commerce, and an ad hoc member appointed by the governor from the area affected by the proposed power plant. Id. at §140.

Utilities desiring to commence the preparation of a site or begin the construction of a steam generating facility with a generating capacity of 50,000 kW or more must apply to the Board for a certificate allowing such activity. Id. at §§140, 141. The statute contains an exhaustive list of considerations which must be addressed by the applicant (e.g., impact of the project on aesthetic, environmental, health, recreational, and safety considerations). Id. at §142. Part of the required submission bears directly on determinations of need for power and choice of technology. The statute requires that every application include:

> A statement explaining the need for the facility, including (i) reasons that the facility is necessary or desirable for the public welfare and is not incompatible with health and safety; (ii) the load demands which

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* The most important modification imposed by the new statute is that the Planning Board's forecasts and decisions on need are now binding on the Siting Board. Under the old statutory scheme, there was substantial duplication since the Siting Board held its own hearings on the questions of need. Additionally, the amendments also provided for an earlier initial hearing and mandated that the entire process occur within less time.

> the facility is designed to meet; (iii) how the facility will contribute to system reliability, safety, and efficiency; and (iv) that the facility conforms to the current long-range electric forecasts of the energy planning board; a description of any reasonable alternate location or locations for, and alternate practical sources of power to, the proposed facility; a description of the comparative advantages and disadvantages of each such location and source; and a statement of the reasons why the primary proposed location and source is best suited to promote the public health and welfare, including the recreational and other concurrent uses which the site may serve. Id.

The Siting Board may not grant the certificate unless it first finds and determines:

- the public need for the facility and the basis thereof,
- that the facility represents the minimum adverse environmental impact considering the state of available technology and the nature and economics of the various alternatives,
- that the facility is consistent with long-range planning objectives for electric power supply within the state, and
- that the facility is in the public interest considering the environmental impact of the facility, the total cost to society as a whole, and the possible available sites or alternative available sources of energy.

The statute does not specify the relationship between the Siting Board and the PSC. Whether the Siting Board's approval preempts decisions by the PSC on plant financing or rates is not specified in the law.

II. Demand Forecasting and Planning:

New York requires utilities and regulatory agencies to engage in comprehensive energy decision-making. The governmental planning process is discussed supra. Forecasting by utilities (including the Power Authority of the State of New York ("PASNY")) is governed by Section 5-112 of the Energy Law which requires annual 5, 10, and 15-year forecasts. Utilities must identify winter and summer peak loads as well as system loads, project probable out-of-state sales, and the required replacement or substitution of generating capacity and identify the effect of load management and conservation techniques on load growth. N. Y. Energy Law §5-112 (McKinney). The law does not specify a required forecasting method. Power plants designed to meet any increase in demand must be identified by fuel type. Id.

The Energy Office holds legislative-type public hearings on the forecasts and prepares a draft report incorporation its finding. Id. at §5-112. The draft report is submitted to the Planning Board which holds hearings and adopts a final report. The findings of projected electric demands for the forecast periods in the Planning Board's report are binding on the Siting Board with respect to the determination of need for a utility.

III. Timing and Stages in Power Plant Decision-making:

The New York siting scheme is designed to impose explicit time constraints on siting decision-making in order to promote expeditious resolution of siting controversies. "It is the legislature's intention . . . to (a) establish a strict time schedule within in which any hearing must be conducted and a determination reached." 1978 N. Y. Law ch. 708 §1. Section 143 of the Public Service Law contains the following time limits:

0 days	Application received.
60 days	Determination that the application complies with the filing requirements of §142 (docketing). If docketed, a date is set for the commencement of public hearings.
Reasonable time	Prehearing conference and public hearing.
24 months	Final decision is to be made by the Siting Board.

IV. Practice and Procedure:

A. Public Participation:

New York has attempted to encourage public participation in the determination of need for power and choice of technology issues as well as throughout the energy facility siting and planning process. The legislature has complied with finding of the 1972 New York Bar Association study that a major flaw in energy decision-making was the absence of meaningful participation throughout the process. *See*, *Energy and the Environment*, Association of the Bar of the City of New York (1972). Public participation is solicited through geographically dispersed hearings before action is taken on the state energy plan (*see* §I, *supra*) or the demand forecast report (see §II, supra). Hearings are required after the document is initially proposed by the state Energy Office as well as before the Energy Planning Board adopts the final version. The two tier hearings process seems to be designed to provide for public participation at all the crucial stages of the planning process.

Equally significant is New York's provision for a fund to be distributed to interested persons in connection with their participation at the hearings. N. Y. Energy Law §5-114 (McKinney). The fund may be used to defray expert's (but not lawyer's) fees. The manner in which the fund is to be disbursed is not specified in the statute; presumably use of the money is a matter within broad agency discretion.

Arguably, limited public membership on the Energy Advisory Council (discussed, *infra*) helps to insure that the broad public interest view is represented in the routine decision-making process.

Additionally, the siting law contains provisions which are designed to foster effective public participation. A member of the public from the area which would be affected by the proposed power plant is appointed to the siting board for the duration of that body's consideration of the proposal. The utility is also required to serve notice on a broad range of parties (including several state agencies, affected municipalities, libraries in affected districts, state legislators, and "persons who have filed a statement with the Board within the past 12 months that they wish to receive all such notices concerning facilities in the area in which the facility is to be located as primarily proposed or in the alternative locations listed." N. Y. Public Service Law, §142 (McKinney)). Utilities are also assessed a fee of $150,000 which is used to establish a fund to defray the expenses incurred by municipal and other parties for expert witness and consultant fees. *Id*.

B. Interagency Coordination:

Coordination among state agencies is accomplished through the Energy Planning Board which has ultimate authority for assessing need and, through the vehicle of the master plan, deciding choice of technology issues. The interagency composition of the Board (*see* §I, *supra*) insures that the agencies with vital interests in energy issues will have a direct voice in the planning process.

Other agencies which have an interest in energy policy (e.g., the Departments of Transportation and Commerce) have an impact on the process through membership on the 13-member Energy Advisory Council. N. Y. Energy Law §5-115 (McKinney). In addition to its governmental members, the council is composed of five persons who are not holders of public office. The powers and responsibilities of the council are vague. The statute provides that "the council shall assist the commissioner (of the state Energy Office) in carrying out the purposes of (the energy law), including the coordination, development, and implementation of a comprehensive state energy policy." *Id*.

V. Projected Construction:

In their April 1979 report, New York's electric utilities proposed construction of 14 new baseload facilities during the period 1979-1994. The planned expansion represent 14,150 additional MW of capacity, 65 percent of which is nuclear, 22 percent is coal, 7 percent pumpted storage hydroelectric, and 6 percent oil. Applications for eight power plants are currently pending before the Siting Board.

North Carolina

I. Basic Regulatory Approach:

Regulation of utilities in North Carolina is primarily the responsibility of the North Carolina Utilities Commission ("Commission"), a body with seven members appointed by the Governor and approved by the General Assembly. N. C. Gen. Stat. §62-10. In addition to its other regulatory responsibilities, the Commission adopts its own load forecasts and generation mix plans. The North Carolina Energy Policy. Council ("Council") also engages in separate energy functions.

Prior to undertaking construction of any new power plant, an investor-owned utility must be granted a Certificate of Public Convenience and Necessity from the Commission. Included in the certificating process is an evaluation of need for power and a review of the utilities' technology choice. Municipal utilities are generally exempt from Commission regulation within city boundaries, Id. at §§62-3(23)(d), 62-110-2, though they must file the same reports required of other utilities. Id. at §62-47.

The Commission's need determination is binding on local government agencies but not on other state agencies. Commission response to ABA survey. State agencies are encouraged to participate in certificating procedures, but the procedure does not exempt other state agencies' authority on environmental or other land use concerns. The other state agencies have authority to review independently the benefits of a particular power plant proposal.

II. Demand Forecasting and Planning:

General energy planning functions are exercised by the Council, a permanent panel within the Department of Commerce. N. C. Gen. Stat. ch. 113B. The chairman of the Commission and the secretary of the Department of Natural Resources ("DNR") are among its members. Other members are selected from the North Carolina legislature or from the public. The public members must be selected for their expertise in different aspects of energy production consumption and supply. Id. at ch. 113B-3. The Council has principal responsibility for forecasting and assessing alternative energy sources in its annual reports. The Council is required to recommend to the Governor a comprehensive long-range energy policy to include an energy conservation plan, an energy management plan, an emergency energy program, and an energy research program. The energy management plan includes requirements for consideration of patterns in end use consumption of energy; 5, 10, and 20-year forecasts of future energy demand and supply; and recommendations on the use of different sources of energy that "seem most appropriate and feasible for North Carolina . . ." Id. at at ch. 113B-9. A separate annual report requirement also includes an assessment of growth trends in energy consumption and production and the environmental implications thereof, as well as a discussion of energy conservation opportunities. Id. at ch. 113B-12. The Council's plan has no legal effect on utility or commission policies regarding new power plants.

The North Carolina legislature, in 1975, directed the Commission to develop and maintain an analysis of the long-range need for electric power in North Carolina. The Commission holds annual hearings in which staff and utility forecasts are evaluated and a final forecast is adopted. The Commission has aopted forecasts which differ from both the utility and staff projections. The report includes generation mix as well as total demand. This report apparently limits the utility choice of technology and level of capacity expansion.

In a power plant licensing proceeding, the Commission will consider all issues raised by the parties. According to the Commission's ABA survey response, national policy, state, policy, environmental protection, alternative energy sources, public health and safety, system reliability, and conservation of nonrenewable sources are always considered.

III. Timing and Stages in Power Plant Decision-making:

The time limits and stages of licensing review are as follows:

0 days to 28 days	Publication of notice following submittal of the certificate application in a newspaper in the county of the proposed facility once a week for four weeks.
3 months	Public hearing.
4 months	Submittal of briefs and oral arguments (within 30 days after conclusion of the hearings).
6 months	Commission decision (within 60 days after conclusion of the arguments). *Id.* at §62-82.
7 months	Deadline for filing notice of appeal with the Commission indicating the grouns of objection. *Id.* at §62-90.

IV. Practice and Procedure:

All state agencies, including the Energy Policy Council, are encouraged to participate in both Commission licensing and planning hearings on the need and choice issues. Intervention rules are described by the Commission as liberal. Low-cost documents are provided for public groups that intervene, but no intervenor funding is provided. In 1977, North Carolina adopted legislation dividing the Utilities Commission into two staffs, one of which represents public interests. In addition, the Attorney General is empowered to participate in Commission proceedings on behalf of utility consumers and the public as does the Energy Policy Council. *Id.* at §62-20.

V. Projected Construction:

North Carolina has 12 units projected for construction with a total capacity of 12,484 MW. Three are coal fired and the remainder are nuclear. All have been delayed past their original completion date either because of revised load forecasts or changing economic conditions. U. S. Department of Energy, *Inventory of Power Plants in the United States* (December 1979).

North Dakota

I. Basic Regulatory Approach:

North Dakota's Energy Conversion and Transmission Facility Siting Act requires a need for power, choice of technology, and siting determination within the process of Certification of Site Compatibility. N. D. Cent. Code §49-22-07. Utilities are primarily responsible for demand forecasts, but these are reviewed by the Public Service Commission ("PSC"). Id. at §49-22-04. The PSC must issue a Certificate of Convenience and Necessity prior to the commencement by a utility of construction or extension into a new municipality. Id. at §49-03-01.

The Certificate of Site Compatibility is designed to be a one-stop permit; local zoning permits, however, must be separately issued. Id. at §49-22-16(2). Other state permitting agencies are bound to the site determination, but otherwise must separately issue permits. Id. at §29-22-16(3). Affected agencies participate in the site approval process. Id. at §49-22-16(4). Thus, in practice, each affected agency and local zoning authority must approve the facility.

II. Demand Forecasting and Planning:

Utilities are required to annually submit ten-year plans detailing proposed, retired, and in-service facilities as well as projected demand the underlying assumptions for the projections. Id. at §49-22-04(5). Formal review of these plans by the PSC occurs to "assess the impact of the development . . . to ensure that energy conversion facilities . . . will be sited in an orderly manner compatible with environmental preservation and efficient use of resources." It is unclear if this involves a rigorous need for power evaluation.

When requesting site approval utilities, must also "explain the need" for the facility. Hearings are required prior to approval of the site. Id. at §49-22-13. These hearings must "afford interested persons an opportunity to be heard . . . ." Id. Broad public participation is encouraged. Id. at §49-22-13. Presumably, interested persons could challenge utility explanations of need.

In considering a site application, peak load pricing and load management are not considered. Conservation and pooling possibilities are given only secondary consideration. NRC Need for Power Review. Statutory requirements impose consideration of other factors, including waste energy recycling, new technology, long-range development impacts, and environmental considerations. State energy policy is also always considered.

III. Timing and Stages in Power Plant Decision-making:

For site applications received after July 1, 1977, the PSC must hold hearings and make site determinations within six months. Hearings require 20 days notice. Id. at §49-22-13. Failure of the PSC to reach a decision within the required time does not divest it of jurisdiction. Apparently this provision prevents site approval by operation of law.

IV. Practice and Procedure:

Public hearings are required in counties affected by a site consideration. Id. at §49-22-13. Other state agencies whose permits are required prior to power plant approval are to participate in the public hearing and other proceedings of the PSC. Id. at §49-22-16. Citizen participation is encouraged in both the public hearing and other PSC activities. Citizen access to books, records and files is assured. Id. No peoples' counsel or public advocate is provided.

V. Projected Construction:

Four coal-fired power plants with a total capacity of 1,840 MW are projected for construction in North Dakota. All have experienced delays. U. S. Department of Energy Inventory of Power Plant in the United States (December 1979).

Ohio

I. Basic Regulatory Approach:

Chapter 4906 of the Ohio Rev. Code, enacted in 1972, created the Ohio Power Siting Commission ("Commission") and charged that body with the responsibility of coordinating the siting of electric power plants within the state. The Commission has jurisdiction over major energy facilities. These include the siting of generating plants designed for or capable of operation at a capacity of 50 MW or more, natural gas transmission lines designed for or capable of transmitting gas at pressures in excess of 125 psi, and electric transmission lines capable of transmitting 125 kV or more. Ohio Rev. Code Ann. §4906.01. Plants utilizing solid waste as a primary fuel are excluded from the jurisdiction of the Commission. The Commission membership consists of the Directors of the Departments of Health, Environmental Protection, Economic and Community Resources, Natural Resources and Energy, a representative of the public who is required to be an engineer, and four non-voting legislative members. *Id.* at §4906.2. All decisions must be made by a majority of four affirmative votes.

The statute provides that no utility shall construct a major facility without first obtaining a certificate from the Commission. *Id.* at §4906.04. The need for power is considered during the certificating process in which applicants for a certificate are required to present, *inter alia*, a statement explaining the need for the facility. *Id.* at §4906.6. More directly, the statute expressly prohibits granting a certificate unless the Commission finds, inter alia, "(1) the basis of need for the facility . . . (3) that the facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives . . . (6) that the facility will serve the public interest, convenience, and necessity." *Id.* at §4906.10.

Along with this explicit duty, the Commission has broad statutory authority which could provide a legal basis for decisions based on need for power or choice of technology. The Commission may "(r)equire such information . . . as it considers necessary to assist in the conduct of hearings and any investigations or studies it may undertake; (and) conduct any studies or investigations which it considers necessary or appropriate to carry out its responsibilities under this chapter." *Id.* at §4906.03. Together with the explicit statutory authority summarized above, this provision insures that need for power and choice of technology considerations (including the issue of what mix of various sized power plants would best meet a given level of need) are considered in the context of the siting decision.

The state Public Utilities Commission ("PUC") also has an impact on need for power decision-making since it may consider the need issue in the context of rate-making proceedings.

II. Demand Forecasting and Planning:

An application for a certificate to permit a utility to begin construction of a facility must explain how the facility conforms to the applicant's load forecast. *Id.* at §4906.06. The Regulations of the Ohio Department of Energy detail requirements for utility forecasts. *See*, Ohio Admin. Rules, ch. 1551-1 and 1551-2. While the chocie of forecasting methodology is explicitly left to the utility, the regulations require the utility to explain and justify its forecast. The forecast must consider the availability and potential development of primary energy sources (coal, oil, hydro, nuclear, solar, wind, etc.) and relative prices and availability of alternatives to the use of electric energy. It must also project peak demand for the ensuing ten-year period.

III. Timing and Stages in Power Plant Decision-making:

0 days	Filing of an application; the Commission is required to fix a date for a hearing.
Not less than 60 nor more than 90 days	The Commission shall hold a meeting.
As expeditiously as possible	The Commission shall conclude the proceeding Ohio Rev. Code. Ann. §4906.07.
2 years	Earliest possible date for the planned commencement of construction of the facility. Id. at §4906.06.

IV. Practice and Procedure:

1. Public Participation - The Commission is required to hold a hearing on the utility's application for a certificate. Id. at §4906.07. Though it must accept written or oral testimony from any person at the hearing, the right to call or examine witnesses is reserved to parties. Id. at §4906.08.

Chapter 4911 of the Code provides for a Consumer's Counsel with the power to "institute, intervene, or otherwise participate in state and Federal proceedings." The counsel must be an attorney.

2. Interagency Coordination - Ohio does attempt to coordinate the actions of its various agencies. The statute provides that the Siting Commission's decision is binding on other state and local agencies. §4906.13. Agreements among state agencies provide for review of the power plant licensing application by interested governmental entities.

V. Projected Construction:

Ohio utilities currently plan to construct 20 new power plants to increase their capacity by a total of 10,303 MW. Although only four of the proposed plants will utilize nuclear fuel, the plants, due to their large size, represent 39 percent of the proposed additional capacity. Three utilities have proposed the construction of moderate size oil-fired plants. Ohio utilities also plan to construct plants utilizing other sources of energy: two hydro and 11 coal plants are among those projected for construction. Compiled from the Ten-Year Forecast Reports Filed by Ohio Utilities with the Ohio Department of Energy (April 1980).

Oklahoma

I. Basic Regulatory Approach:

Oklahoma's principal utility regulatory agency is the Corporation Commission. Although the Commission has authority over rates, Okla. Stat. Ann. tit. 17, §152, and over the issuance of securities, Id. at §182 et seq., it does not have authority to require utilities to obtain approval prior to constructing a power plant. The Oklahoma Supreme Court was held that

> (T)he Constitution does not confer upon the Corporation Commission, either expressly or by necessary implication, the power to regulate, supervise, and control the internal management of a power company to the extent that it may prohibit construction by (such) a company of electric generation stations . . . even though it is intended that the proposed project is not necessary for the company to supply its customers and that the company is not making the best use of its existing plants. Oklahoma Gas and Electric Company v. Corporation Commission, 543, p. 2d 546 (Okla., 1975) (holding that the Corporation Commission has no authority to prohibit the construction of new power plants).

The manner in which Oklahoma considers need for power and technology choice issues is unclear. The Commission contends that it has the power to consider these matters in spite of the holding in Oklahoma Gas and Electric. The broad language and general approach of that case seemingly do not support that contention. The issue may be litigated again in the form of a utility challenge to the Commission's proposed advance planning procedure (discussed infra.). Interpreted broadly, the procedure would empower the Commission to consider both need and technology choice issues.

II. Demand Forecasting and Planning:

Neither the Oklahoma Constitution nor statutes require demand forecasting either as a matter of course or in conjunction with construction of new facilities.

However, the Commission has proposed, by administrative regulation, an advance planning procedure which requires each each utility to submit, every two years, a 20-year forecast of future energy requirements and a list and discussion of available alternatives to meet that need. Notice and order to Establish Rules Relating to Advance Planning, Corporation Commission of Oklahoma, Cause 26786 (January 4, 1980).

III. Timing and Stages in Power Plant Decision-making:

As power plant licensing is not required by statute, time limits for regulatory approval are not specified.

IV. Practice and Procedure:

Oklahoma's Open Meeting Act, Okla. Stat. Ann. at tit. 25, §301 et seq., requires advance public notice be given specifying the date, time, place, and agenda for each meeting held, including hearings on ratemaking and the issuance of securities. All hearings are open to the public. Although no consumer advocate is provided by statute to represent consumer interest, the Supreme Court of Oklahoma has held that "the Corporation Commission represents the consumer and its orders fixing rates are for the benefit of the consumer." Chickasha Cotton Oil Company v. Corporation Commission, 562, p. 2d 507 (19).

V. Projected Construction:

Nine power plant are projected to be built in Oklahoma. Two of the plants will utilize a nuclear fuel, the remainder will be coal fired. Seven of the plants have been delayed a year or more. Two of the plants that have been delayed a year or more are nuclear fueled; the delay is attributed to prolonged procedures to obtain necessary certificates or approvals from government agencies. The in-service date of two other generating units have been moved back due to revised load growth estimates. U. s. Department of Energy, Inventory of Power Plants in the United States (December 1979).

Oregon

I. Basic Regulatory Approach:

Oregon's regulatory authority over public utilities is spread among three agencies which coordinate the siting process. The Energy Facility Siting Council ("Council) is the lead agency for power plant approval. Each new energy facility must receive site approval. Or. Rev. Stat. §469.320. During site review, the demand for a proposed plant is evaluated by the Council. The Oregon Department of Energy ("ODOE") also participates as "staff to the siting Council," and in that role prepares forecasts.

The Oregon Public Utilities Commission ("PUC") regulates utilities, especially their rates and revenue and prepares a limited forecast for rate and revenue evaluation.

Site approval by the Council preempts all state and local agencies, all of which are entitled to participate in the siting process. Or. Rev. Stat. §469.350(3).

II. Demand Forecasting and Planning:

The Energy Facility Siting Council issues Certificates of Site Compatibility. Id. at §469.300 et seq. The application must include a specific discussion of the projected needs and capacity, pooling opportunities and impacts, consequences of delay, energy alternatives, and demographic factors. Id. at ch. 345., §25-011. Public hearings must be held prior to site approval. Id. at §469.470.

Comprehensive statewide forecasting is also undertaken annually by the state Department of Energy. Id. at §469.070. These forecasts are for the 5, 10, and 20 years following. Id. The ODOE forecasts include energy demand resources and impacts of conservation and new technology. Id. at §469-070. Utilities (as well as petroleum and coal suppliers) submit similar forecasts to the ODOE. Id. The forecasts undergo intensive review. The Department publishes its methodology for public comment six months prior to its annual forecast.

During site review, the utility forecast and the ODOE forecast are both considered by the Council. The Council makes an independent determination on the need for a particular energy facility. Neither the annual forecast by the ODOE nor the site approval certificate by the Council may be issued without a public hearing.

A variety of factors (according to the ABA survey) are considered by the Council in determining technology choice. Sometimes the utility's choice is a factor. Costs of investment, cost of operation, and cost to the consumer are always considered. In the consideration of choice of technology, environmental concerns, fuel cycle status, reduced reliance on oil, and diversity are not considered. On the other hand, many of these are included in the final project decision: Conservation of non-renewable resources, environmental protection, and alternative energy sources are always considered as are state energy policy objectives, public health and safety, system reliability, and special land preservation. National policy objectives are sometimes considered.

III. Timing and Stages in Power Plant Decision-making:

Prior to application	Statement of intent to file application for site approval. Publication of notice.
0 days	Application for Site Certificate; begin study by Council.

21 days before hearing	Notice of hearing.
As scheduled	Hearing.
6 months (expansion)	Final decision
9 months (geothermal, combustion, turbine)	
12 months (most facilities)	
24 months (nuclear plants)	

IV. Practice and Procedure

Standing in hearings on site certificates is broadly granted to any "person whose interest may be affected." Liberal intervention rules, open access to information, low-cost documents, low-cost transcripts, and party status all encourage public participation. Notice of hearings on the energy forecast is given to "persons who have interest in the subject." Or. Rev. Stat. §469-070.

Oregon and Federal agencies are similarly allowed to participate. Id. at §469-350(3); ch. 345 §15-020. The state has not established a public advocate or counsel to represent the public or intervenors.

V. Projected Construction:

Eleven power plants are projected for construction in Oregon, with a total capacity of 3,659 MW. Many of these are projects of the Bonneville Power Authority. Eight of the projected plants are hydroelectric, two are nuclear, and one is coal burning. Nine of the plants will be completed on time. Two remaining plants, both nuclear, are substantially delayed. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

Pennsylvania

I. Basic Regulatory Approach:

Pennsylvania's Public Utility Commission ("PUC") has traditional regulatory authority over rates and securities. Pa. Stat. Ann. tit. 66 §1301 *et seq.*, but exercises no prior control over the construction of power plants. Recently, the active Office of the Consumer Advocate in Pennsylvania has raised the issue of excess capacity, *post hoc*, in several rate proceedings, although some limited success.

The statutes require that a utility procure a Certificate of Public Convenience and Necessity from the PUC "to begin to offer, render, furnish, or supply service within this commonwealth." *Id.* at §1121. The statute applies only to those utilities which are for the first time offering service in an area and not to those companies expanding service within the existing service territory.

In Pennsylvania, the Consumer Advocate's jurisdiction is coextensive with the jurisdiction of the PUC and related Federal agencies. *Id.* at tit. 9A §901. The advocate is charged with "representing the interests of consumers." *Id.* In one case, the advocate raised the issue of excess capacity allegedly held by Philadelphia Electric. The Commission recognized this excess but declined to adjust rates.

> Though the forecast track record of the company has been very poor, we cannot conclude, under all of the circumstances and in view of the industry-wide forecast record, that such erroneous forecasts were the result of imprudent management policies. *Pa. PUC v. Philadelphia Electric Company*, Docket #R: I.D. 438 at 14 (1979).

In another case, a rate adjustment was made, but not based solely on excess capacity. *See, Pennsylvania Public Public Utility Commission v. Pennsylvania Power Company*. Docket # January 20, 1979.

Recent legislation created the Bureau of Conservation, Economics and Energy Planning (the "Bureau"). Pa. Stat. Ann. tit. 66 §458.1 *et seq.* The Bureau must prepare long-range forecasts of energy needs, of alternatives, and the relative efficiencies of various technologies. The Bureau is further required to "review all proposals for electric and gas public utility plant expansion and shall submit for the consideration of the Commission its findings on what impact, if any, the electric and gas public utility plant expansion will have on rates charged by the public utility." *Id.* at §458.1(b).

II. Demand Forecasting and Planning:

The PUC may require any information appropriate to its function from the utilities. *Id.* at §504. Utilities are specifically required to file an annual conservation report showing plans and progress achieved on programs of energy conservation. Id. at §457.3(b).

The Bureau, as noted, is charged with the duty of long-range forecasting of energy needs and development. It may also examine the use of new, efficient, and economical methods of energy production and the efficiency of present generating systems. Clearly, the Bureau has apparent authority to prepare the forecasts and assessments of power alternatives necessary for determinations of power needs and selection of optimal means of meeting those needs. Whether the Bureau exercises this power is unknown.

Finally, under the 1979 legislation, the energy council is required to adopt rules requiring utilities to periodically report their electrical generating capacity and their long-ranges plans for additions to that capacity, types, and quantities of fuel used and projections of future demand. *Id.* at §4121.

III. Timing and Stages in Power Plant Decision-making:

There is no prior licensing of power plants and therefore time limits do not apply.

IV. Practice and Procedure:

Discussed *supra*.

V. Projected Construction:

Fifteen power plants are planned in Pennsylvania representing a total additional capacity of 11,457 MW. Nine of the plants would utilize coal as their primary fuel, six will use uranium, five will be hydro, and four will burn coal. Fifteen of the plants have been delayed a year or more. U. S. Department of Energy, *Inventory of Power Plants in the United States* (December 1979).

Rhode Island

I. Basic Regulatory Approach:

Rhode Island does not have a comprehensive power plant licensing procedure, although there have been proposals to establish such a system in each of the last three legislative sessions.*

The Rhode Island Public Utilities Commission ("Commission") has general responsibility for the regulation of electric and gas utilities. R. I. Gen. Laws §39-1-1. The enabling authority for that body and its organization is provided by statute. See, Id. at §39-1-4 et seq. The Commission is in the process of issuing rules which are scheduled to be published shortly.

Utilities desiring to furnish gas or electricity in any town or city must first obtain a Certificate of Public Convenience and Necessity from the Division of Public Utilities of the State Department of Business Regulation ("Division"). Id. at §39-3-1. The statute applies to those utilities "desiring to furnish or sell." Apparently, it would have no effect on utilities already in business (and thus holding certificates) which merely desire to expand capacity by constructing additional plant capacity.

Any commission determination on need for power or choice of technology issues must stem from other authority. The statutory provision that rates may not be "unjust, unreasonable, insufficient, or unjustly discriminatory," Id. at §39-4-9, may be read as implying authority for a need for power analysis. Additionally, the statute sets out as a policy favoring "the preservation of the state's resources (which) requires the assurance of . . . an abundance of energy . . . supplied to the people reliably at economical cost." Id. at §39-1-1.

If the facility is in the coastal region, the Coastal Resources Management Council ("Council") has the power to approve, modify, or reject the plan. Id. at §46-23-6. The structure, composition, and authority of that body is set out in the statute. Id. at §46-23-1 et seq. The Council is also authorized to formulate plans and programs for each resource which will take into account, inter alia, the need and demand for various activities. Id. at §46-23-6. Thus, it could well be that the lead agency for evaluating power plants proposed for coastal areas is the Council rather than the Commission.

II. Demand Forecasting and Planning:

Rhode Island laws do not require that either state or the utility engage in any type of load forecasting or planning. If such power exists it must be by implication in some general law.

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* Late in September 1979, an Executive Order created a new Energy Facility Siting Board. Little information is available on the Board and must requires explanation. The number of members and their required qualifications are not available. The statutory authority for the creation of the Board is unclear. The powers and duties of the Board also require further explanation.

III. Timing and Stages in Power Plant Decision-making:

Upon receipt of a petition for a Certificate of Public Convenience and Necessity from a utility, the Division of Public Utilities fixes a time and place for a hearing. There is also an appeal of decisions of the Division to the public utility hearing board. Id. at §39-3-6.

IV. Practice and Procedure:

Rhode Island provides for a Consumers' Council and gives it standing to initiate or intervene in any formal proceedings before the Commission.

The Commission is required to hold a hearing on all applications for a Certificate of Public Convenience and Necessity. Notice must be given to the petitioner, the mayor of the town affected, the president of the Town Council, and any affected utility. Id. at §39-3-5.

V. Projected Construction:

There are currently two power plants projected for construction in Rhode Island. Both of these are oil burning plants to be operated by the Newport Electric Corporation which have yet to be sited.

South Carolina

I. Basic Regulatory Approach:

South Carolina's Utility Facility Licensing Act requires the certification of "major utility facilities" by the Public Service Commission ("PSC"). S. C. Code §58-33-10. Both private and municipally-owned facilities capable of operation at a capacity in excess of 75 MW must be certified.

A certificate indicates approval of both environmental compatibility and public convenience and necessity. Id. at §58-33-20(8). Other departments of the state, including the Departments of Health and Environmental Control and the Wildlife and Marine Resources Commission are made parties. The procedure is one stop. Id. at §58-33-410. The PSC has authority to preempt local ordinances or regulations conditioned on a finding of "unreasonable restrictiveness." Id. at §58-33-160.

The PSC undertakes independent review of utility demand forecasts in conjunction with facility licensing.

Application to the PSC for a certificate authorizing the construction of a facility must contain a statement explaining the need for the facility. Id. at §58-33-160. The PSC may not approve the application without considering the need for the facility. Id. Additionally, there is statutory language which implies a choice of technology analysis: "(The Commission shall consider) the probable environmental impact of the facility, (and shall not issue a certificate unless it finds that) the impact of the facility upon the environment is justified considering the state of available technology and the nature of economics of various alternatives and other pertinent considerations." Id. Thus, alternatives implicitly must be weighed and evaluated in light of their environmental impacts.

Need for power considerations are also relevant in another context. The PSC has interpreted its mandate to require the provision of "reasonable, safe, adequate, and sufficient" service, Id. at §58-27-1520, as encompassing a separate need for power analysis. See, Docket No. 78-189-E. Relying on that language and on its rate authority, S. C. Code §58-3-140, the PSC undertook analysis and review of a utilities' forecasts during a rate proceeding. In re Duke Power Company, Order 9-15 Docket No. 78-189-E, May 17, 1979.

The PSC must also approve the issuance of securities by investor-owned utilities. S. C. Code §48-27-1710. It is unclear if the PSC has undertaken need for power review in the context of securities approval.

II. Demand Forecasting and Planning:

Each public utility is required to furnish a report annually to the PSC, containing a ten-year forecast of loads and resources which lists the major utility facilities required to supply system demand during the forecast period. Id. at §58-33-430.

Load forecasts are examined by the PSC during the certificating process, and in at least one case, during a rate proceeding. In re Duke Power Company, Order Docket No. 18,413 January 6, 1976; In re Duke Power Company, Order Docket No. 78-189-E May 17, 1979. Outside consultants may be hired to review the forecast of the utility or staff or prepare an independent forecast. See, e.g., In re Duke Power Company, Order Docket No. 18,413 January 6, 1976.

III. Timing and Stages in Power Plant Decision-making:

0 days	Application received; PSC fixes a date for public hearing.
Not less than 60 days nor more than 90 days	Hearing shall be held.

IV. Practice and Procedure:

The statute expressly requires the Attorney General to represent and appear for the people of the state in matters of general and public interest and to intervene, if directed to do so by the PSC, in any such matter. S. C. Code §58-3-120.

South Carolina has also recently established a Consumer Advocacy Division within the Department of Consumer Affairs. The advocate may become a party in PSC proceedings.

V. Projected Construction:

As of December 1979, there were 14 projected power plants in South Carolina representing a total additional capacity of 9,276 MW. Five of the plants will use nuclear fuel, five coal, three hydro, and one oil. Six of the plants have been delayed a year or more. The primary cause of the delay has been revised load forecast. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

South Dakota

I. Basic Regulatory Approach:

No utility in South Dakota may construct a facility capable of generating 100 MW or more of electricity without first obtaining a permit from the Public Utilities Commission ("PUC"). (S. C. Com. Laws Ann. §49-41B-4). Requirements for the permit are explicitly stated. Once met, no further administrative challenge is permissible. Applications for the required permit must address, inter alia, estimated consumer demand, estimated future energy needs of those consumers to be directly served by the facility, and environmental studies which have been prepared relating to the facility. Id. at §49-49B-7, see also §49-41B-22. The permit supersedes or preempts county ordinances and regulations if the PUC finds that such ordinances or regulations are unreasonably restrictive in view of existing technology, factors of cost or economics, or other interests of the parties. It is, in short, a comprehensive license to proceed, disposing of all issues in a single proceeding.

II. Demand Forecasting and Planning:

South Dakota requires each utility that owns or operates a generating facility, or plans to own or operate a facility within ten years, to development and submit a ten-year plan to the PUC. The plan must be updated every two years. Id. at §49-41B-3. It must contain "a statement of the projected demand for the service rendered by the utility for the ensuing ten years and the underlying assumptions for the projection . . . (with) a description of the manner and extent to which the utility will meet the projected demand." The statute specifies neither a forecasting methodology nor a basis for PUC review of the plan. These become matters of PUC discretion. Utilities are apparently not bound by their long-term forecasts nor by the biennial update. These plans are not subject to review in public hearings and apparently not in judicial proceedings. However, there is authority for PUC review of need for power. In licensing proceedings, the applicant must submit, among other information:

(1) Estimated consumer demand and estimated future energy needs of those consumers to be directly served by the facility. Id. at §49-41B-11.

The PUC may also require "further data" be provided. Id. at §49-41B-8). The local review committee described at IV C infra must consider "temporary and permanent alternatives in . . . (12) energy." Id. at §49-41B-7. Once considered, the local review committee must take recommendations to the Commission on the proposed certificate. Id. The applicant has the burden of proving, among other items, that the plant will not "pose a threat of serious injury . . . to the social and economic condition of inhabitants . . . in the siting area;" nor "impair the health, safety, or welfare of the inhabitants . . ." Id. at §49-41B-22. Clearly, excess capacity could impose economic hardship on ratepayers and adversely affect their welfare.

III. Timing and Stages in Power Plant Decision-making:

6 months before	Latest date for utility to file notice of intent to apply for construction of an energy conversion facility.
Upon request of utility	Prefiling conference.
Within 30 days	The PUC shall designate six-month notice of the affected area and the local review committee.

0 days	Application filed.
30 days	The PUC shall schedule a hearing, notify applicant and other governing bodies, file a copy with the county auditor, and publish the notice in a paper of general circulation and shall hold the hearing.
6 months	Earliest possible date for the start of construction.
7 months	Latest date that the local review committee may file its report.
Within 12 months	The PUC shall make complete findings and render a decision regarding the grant or denial of a permit.

IV. Practice and Procedure:

A. Parties:

The statutory provision is broad. "Any interested person" may become a party and may make a special appearance.

B. Other Agencies:

The PUC is required to hear and receive evidence presented by any state department, agency, or by units of local government relative to environmental, social, and economic conditions, and projected changes therein. *Id.* at §49-41B-19. Intergovernmental coordination (according to the ABA survey) is arranged at the filing of the notice of intent.

C. Public Participation:

(1) The PUC is required to hold the hearing as close as practicable to the site of the proposed facility. *Id.* at §49-41B-16. (2) South Dakota utilizes a local review committee to make the initial examination of the proposal with a recommendation to the PUC. The Committee is evidently structured so as to provide maximum representative local participation. It is composed of the chairman of the tribal council of each affected reservation, the president of the board of education of each affected school district, the chairman of the county commissioners of each affected county, the mayor of each affected municipality, and a representative of the applicant utility designated by the utilities. (3) Private parties may also intervene either as a party or for a more limited appearance in the PUC's hearing for a license. *Id.* at §49-41B-20.

V. Projected Construction:

One oil-fired unit is projected for construction in South Dakota with a capacity of 28 MW. This plant is not covered by the South Dakota Siting Act.

Tennessee

I. Basic Regulatory Approach:

Tennessee utilizes a traditional power plant regulatory scheme, adapted to meet the changing circumstances of an energy crises. Need for power and choice of technology issues are addressed by two independent state agencies.

A. Tennessee Energy Authority:

The Tennessee Energy Authority ("Authority") was created by the Tennessee Energy Act. The Authority is governed by a seven member board of directors. The Speaker of the Senate and Speaker of the House of Representatives each appoint one member; the Governor appoints five. The agency has a broad mandate for formulate, implement, and administer the energy policy of Tennessee. Tenn. Code. Ann. §4-280, including the duty to coordinate the development of energy facilities. Id. at §4208(d). The details of this responsibility are not provided in the statute, except that the Authority may not take any action subject to the jurisdiction of the Public Service Commission ("PSC"). Id. at §4-2815. Since the PSC is not granted explicit authority over power plant siting, it appears the statutory scheme allows the Authority to play a role in that area.

The Authority is given sweeping authority to consider alternative sources of energy (biomass conversion, geothermal, solar, wind, wood, cogeneration, coal gasification, etc.) and to provide grants to experimental projects to aid in their development. Id. at §4-2808.

The statute also makes conservation of energy a state goal and grants the Authority power to implement plans, projects, and programs for the purpose of energy conservation. The Authority is granted the broad power to "develop and carry out its programs on its own initiatives . . . in cooperation with Federal, state, or local governments or with private citizens. Such programs shall include but are not limited to . . . car pooling, home weatherization, incentives to promote conservation, and the use of alternative sources of energy. Id. at §4-2811. Whether utility programs are within the purview of the section is unclear.

B. Public SErvice Commission

The structure and composition of the PSC and the qualifications required of its members are set out in Chapter 1 of title 65 of the Tennessee Code. Procedural rules are contained in Chapter 2 of that title, in regulations promulgated by the PSC, and in the state Administrative Procedure Act. Id. at §4-501.

In Tennessee, a Certificate of Public Convenience and Necessity is only required to the construction of facilities in a territory already served by another public utility. Id. at §65-415. In such cases, the PSC must determine prior to issuance that existing facilities "are inadequate to meet the reasonable needs of the public . . ." Id. at §65-417. Presumably, such certification proceedings could be used to investigate need for power, although certainly not for every power facility.

The PSC also exercises authority over utility rates, which are required to be "just and reasonable." Id. at §§65-518, 65-520. That standard may be broad enough to encompass need for power considerations if only to the extent that the PSC could threaten to refuse rate base recognition of unneeded facilities.

II. Demand Forecasting and Planning:

There is no statutory requirement for systemmatic utility forecasting. Section 65-411 of the Code provides for a uniform system of accounring and requires annual reports by the utilities, but the section appears to be geared more to accountability for past actions than to planning and forecasting.

The regulations issued by the PSC require that utilities having more than 15,000 customers must submit "plans for expenditures to the Commission for approval" prior to beginning construction of any property or addition the cost of which exceeds $50,000. Tenn. Admin. Code §1220-4-1-01. For utilities with less than 15,000 customers, the reporting threshold is $10,000. Id. The regulations do not specify the form or manner of the report.

III. Timing and Stages in Power Plant Decision-making:

There are no time limits on issuance of certificates of convenience and necessity.

Time limits are imposed on rate proceedings.

The PSC must decide all rate proposals within nine months. Proposed rate changes take effect immediately unless suspended by the PSC. The PSC may suspend for three months renewable for another three-month period. Tenn. Code Ann. §65-520.

IV. Practice and Procedure:

The statute provides broadly that the PUC must hold a public hearing before issuing a certificate. Id. at §65-419. Regulations adopted by the PSC grant that body broad discretion to allow intervenors, Tenn. Admin. Code. §1220-1-1.4, and provide for relaxed evidentiary rules at proceedings. Id. at §1220-1-1.07, see also, Tenn. Code. Ann. §65-209.

V. Projected Construction:

There are ten projected power plants in Tennessee representing a total additional capacity of 12,704 MW. All of the plants (nuclear) have been delayed a year or more. The cause of delay and the impact on reliability are unknown. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

Texas

I. Basic Regulatory Approach:

State regulation of electric generating facilities in Texas is of comparatively recent vintage. Until 1976, municipalities were empowered to regulate electric utilities. At that time, the Public Utilities Regulatory Act ("PURA" or "Act") codified at Tex. Rev. Civ. Stat. Ann., art. 1446 C (Vernon Supp. 1980) transferred some of these responsibilities to the newly created Public Utilities Commission of Texas ("Commission"). Municipalities continue to have original jurisdiction over electrical utilities within their corporate limits though they may cede this authority to the Commission. Act at §17.

The Commission consists of three commissioners appointed by the Governor with the advice and consent of the Senate to staggered six-year terms. Id. at §5. The statute requires that the commissioners be at least 30 years of age and also contains a stringent revolving door provision. Id. at §6.

In those cases where the utility is within the jurisdiction of a municipality or another stage agency (e.g., the Coastal Zone Protection Commission), the company must procure approval from that body in addition to the Commission's Certificate of Convenience and Necessity. Id. at §22.

The statute is unclear as to the extent to which the PUC must consider need for power and the merits of alternative methods of meeting demand. It is arguable that the Commission has the authority to consider these issues at either of two stages in their proceedings. First, utilities must obtain a Certificate of Public Convenience and Necessity for any new installation, operation, or extension, and the Commission is required to consider "the need for additional service . . . the effect on . . . recreational land park areas, historic and aesthetic values, environmental integrity, and probable improvement of services or lowering of cost to consumers." Id. at §54. The Commission construes this language as providing authority to engage in analysis of the need for the additional power. Secondly, the statute provides that the Commission may take the growth rate of the service area into account when determining the rate base. Id. at §41(a).

Thus, all construction is subject to periodic review in rate proceedings in order to determine if management was prudent and if the investment is "used and useful." The Commission has adopted a similar approach in reviewing a utility's choice of generating technology. Although the statute does not explicitly require consideration of these issues, the Commission considers them in deciding whether a certification is necessary to the public service, accommodation, convenience or safety. In general, the Commission applies broad statutes and regulations vigorously.

In practice, the Commission considers these issues in every certification case. The applicant utility is required to explain why the facility is needed and to discuss the availability of alternatives. The statement of need must be supported by a load forecast and growth calculations. The utility must also defend its choice of technology: i.e., defend its choice of a particular plant and fuel type over available alternatives. Although the Commission has never denied a certificate on this ground, it construes the broad "public interest" standard of the Act as permitting the inquiry. There is no apparent statutory authority for enabling either cities or state agencies other than the Commission to analyze the need for power or desirability of alternative technologies.

Also important to understanding the state decision-making process on these issues is the role of the Texas Energy and Natural Resources Advisory Council ("Council"). The Council is an executive branch agency endowed with a broad mandate to coordinate energy policy within the state of Texas. Tex. Rev. Civ. Stat. Ann. art. 4413 47b, 47c (Vernon Supp. 1980). Its duties include (1) recommending legislation and execution action to foster the development of increased energy supplies, more efficient energy systems, and increased conservation of energy, and (2) monitoring existing and proposed state actions affecting energy policy and suggesting possible policy alternatives.

Texas does not effectively coordinate actions of its various agencies. Notice of agency action is required to be published in the state bulletin, but this appears to be merely pro forma. Further, utilities applying for a certificate must list and discuss the existence of other agency requirements which will affect the project (e.g., permit requirement, mandatory consultation rules). Still, coordination is limited.

II. Demand Forecasting and Planning:

There is no provision in PURA mandating long-range planning or demand forecasting. The Act gives the Commission power to keep records and accounts in such a manner as the Commission shall prescribe, Act at §§27-36, but the provision seems to be directed at accounting rather than planning for future needs. In practice, the Commission requires utilities applying for a certificate to submit five and ten-year load forecasts which are compared to forecasts developed by the Commission's Economic Research Division.

Another source of planning may be the Texas Energy and Natural Resources Advisory Council. The enabling legislation has a heavy emphasis on planning and evaluation of potential alternative energy resources. Coupled with the function given to the Council of recommending state and Federal legislation, the Council has a sound basis for imposing such requirements on utilities.

III. Timing and Stages in Power Plant Decision-making:

There are no time limits set out in either the statute or the regulations adopted by the Commission concerning the licensing process, although there are time limits for review of rate cases.

IV. Practice and Procedure:

The Commission has promulgated extensive rules governing the conduct of proceedings before it. Parties have the right to present a case (presumably orally) and to cross examine witnesses. Complianants (someone who has complained to the Commission) and protestants (a person opposing any matter contained in the peietion of application pending before the Commission) are not parties. They may submit evidence but not cross examine witnesses. PUC §§52.01.00.021-.023 of Texas, Rules of Practice and Procedure. Intervention is allowed if the party has a "justifiable interest." Id. Anyone is allowed to make informal non-sworn statements at the hearing.

V. Projected Construction:

Texas has 34 power plant projected for construction with a total capacity of 22,710 MW. Twenty-six of the plants will be coal fired, five will be nuclear, two hydro, and one oil. Eighteen of the plants have been delayed a year or more. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

Utah

I. Basic Regulatory Approach:

Despite the recent enactment of legislation creating the Energy Conservation and Development Council ("Council") and an energy policy for the state of Utah, Utah Code Ann. §63-53-1 et seq., the Public Service Commission ("PSC") remains the primary body regulating electrical utilities in Utah. Id. at §54-1-1.5 et seq. The statutory requirement of PSC approval prior to the undertaking of new construction is clear: "No . . . electric corporation . . . shall henceforth establish or begin construction . . . of any . . . line, route, plant, or system without having first obtained from the Commission a certificate that the present or future public convenience does or will require such construction . . ." Id. at §54-4-25. Extensions within the ordinary course of business to territories already served are excepted. Id. The PSC also has authority to regulate rates, Id. at §54-3-1, issue securities, Id. at §54-4-31, and supervise generally, Id. at §54-4-1. Furthermore, authority to regulate sales of excess power is expressly granted. Id. at §54-2-1.

According to one utility, the PSC makes need for power determinations in certification proceedings, at the financial approval stage, and during rate review. Choice of technology is apparently only reviewed in the context of financial approval. At that point, the factors considered are state and national energy objectives, conservation of renewables, environmental protection, public health and safety, system reliability, and availability of alternatives.

Generally, municipal utilities are not subject to PSC regulation. See, e.g., Utah Code Ann. §54-9-2. When undertaking joint construction of facilities with another municipal utility or with an investor-owned utility, the governing body of the municipality must specifically consider:

(a) The economics and efficiencies of scale to be achieved in constructing or acquiring common facilities for the generation and transmission of electric power and energy;

(b) The need of the city for reserve and peak capacity, and the need to meet obligations under pooling and reserve sharing agreements reasonably related to the needs of the city for power and energy to which it is or may become a party;

(c) The estimated useful life of the common facilities;

(d) The estimated time necessary for the planning, financing, construction, and acquisition of the common facilities and the length of advance time needed to acquire, or construct an additional power supply; and

(e) The reliability and availability of existing or alternative power supply sources and the cost of those existing or alternate power supply sources. Id.

The Council is responsible for the collation and coordination of energy resource data. With this data, the Council develops duture state energy projections. The Council is to "provide leadership" in energy conservation. Id. at §63-53-4.

A resolution entitled A Comprehensive Energy Policy for Utah, passed in 1977, establishes need for power and choice of technology considerations as an important part of that state's energy policy. The resolution explicitly states a preference for the development of coal as opposed to other forms of energy. The plan also envisions the development of alternative technologies (wind, solar, geothermal . . .). Act at p. 9 et seq. Conservation and efficient use of energy are also identified as important state goals.

II. Demand Forecasting and Planning:

No statutory provision expressly requires utilities to forecast future energy demand. The Council has authority to undertake forecasting, given its statutory direction to "develop projections of the future state energy," Utah Code Ann. at §65-53-4, but apparently no statewide energy forecast has been developed.

According to one utility, the PSC requires five and ten-year forecasts in conjunction with the application for a Certificate of Public Convenience and Necessity. A description of forecasting methodology must be included, as well as a discussion of regional imports/exports/pooling potential, alternatives to expansion and conservation alternatives. Apparently these forecasts are reviewed by consultants for the PSC. Telephone conversation with Utah PSC February 26, 1980.

III. Timing and Stages in Power Plant Decision-making:

Time limits for the approval of applications for Certificates of Convenience and Necessity are not specified in the statutes or regulations. Applications are processed in a "timely" manner.

IV. Practice and Procedure:

Adjudicatory hearings are held prior to certification of proposed power plants. Intervention rules for these proceedings (as well as rate or securities hearings) are liberal, both to citizens and local governments. Access to information is allowed. Documents are provided at low cost.

Utah has established within the Division of Public Utilities ("DPU") a Committee of Consumer Services ("Committee") consisting of five members appointed from regions of the state by the Governor for a term of five years. Utah Code Ann. §54-10-01 et seq. The Commission must:

- assess the impact of utility rate changes on other regulatory actions.
- assist people in appearing before the PSC.
- advocate on its own behalf and in its own name positions most advantageous to a majority of residential consumers. Id.

The Committee may request that the DPU "review accounting procedures and expenditures of public utilities." Id. The Committee substitutes for a consumer advocate.

V. Projected Construction:

Two power plants are under construction in Utah. Both have been approved by the PSC.

BEST DOCUMENT AVAILABLE

Vermont

I. Basic Regulatory Approach:

Several Vermont agencies are involved in licensing the construction of new power plants. They include:

A. Public Service Board:

Vermont's Public Board ("PSB") has traditional authority over public utility rates, Vt. Stat. Ann. tit. 30 §225, and utility financing, Id. at §209. Furthermore, it must approve utility construction plans. Id. at §248. It is a three-member body, appointed by the Governor with legislative approval. Id. at §3(a).

Gas or electric utilities may not begin site preparation for or construction of an electric generation facility unless the PSB, after hearing, finds that the project will promote the "general good of the state" and issues a certificate to that effect. Id. The statute requires that before the Board approve construction of a plant it determine, inter alia, that the project:

(1) will not unduly interfere with the orderly development of the region with consideration being given to the recommendations of municipal and regional planning commissions and the municipal legislative bodies;

(2) is required to meet the need for present and future demand for service;

(3) will not adversely affect system stability and reliability and economic factors; and

(4) will not have an undue adverse effect on esthetics, historic sites, air and water purity, the natural environment . . . Id. at §248.

B. Department of Public Service:

The Department of Public Service ("Department") must prepare long-range forecasts of electrical demand, updated annually and reviewed at least every five years. Id. at §202(g). Additionally, plans for the first five years are reviewed annually. Id. Proposed utility construction is reviewed for consistency with the plan, Id. at §202(f), however, the Department's determination of consistency (or lack thereof) is not binding on the PSB. Rather, it is only one of a number of factors the PSB must consider. Id.

The Department also acts as the agent to negotiate for the state for the purchase and sale (on a non-profit basis) of electricity outside the state (e.g., for sale of Vermont electricity sold outside the state and purchase of electricity for sale within the state). Id. at §211. Contracts for sale/purchase must be approved by the Governor. Id. Purchases of power within the state must be at the request of the seller.

The Department reviews utility tariffs and recommends approval or disapproval of changes to the Board (Id. at §225).

C. Environmental Conservation Agency:

The Department of Water Resources has jurisdiction over "water pollution and air pollution, environmental radiation pollution, the disposal of wastes of all types . . ." Id. at tit. 3 §2874. Persons desiring to alter the course of a stream or modify its flow must secure a permit from the Water Resources Board. Id. at tit. 10 §1021 et seq.

D. State Energy Office:

This entity was created as an office within the agency of administration. Id. at tit. 3 §2286. It is to perform such functions as may be required by any order, rule, or regulation promulgated under the section. Id. There is no other statutory duty or power granted the office except administration of Federal grants.

E. The Legislature:

The PSB is required to obtain the approval of the General Assembly before granting a certificate permitting the construction of a nuclear plant. Id. at tit. 30 §248(c).

F. Other:

Several other statutes have also been adopted with the purpose of promoting energy conservation and use of renewable energy sources in Vermont. Towns are authorized to appoint an energy coordinator who shall undertake, in addition to coordination functions, the study of additional and alternative sources of energy with a view toward the more efficient and economical utilization of existing and potential energy resources. Id. at tit. 24 §1131. The state also allows a tax credit for alternative technologies (e.g., solar, wind, wood). Id. at tit. 32 §5921.

II. Demand Planning and Forecasting:

The requirements for load plans, which must be prepared by the Department, are clear:

(1) an overview, looking 20 years ahead, of statewide growth and development as they relate to future requirements for electrical energy, including patterns of urban expansion, statewide service area economic growth, shifts in transportation modes, modifications in housing types and design, conservation and other trends, and factors which, as determined by the director, will significantly affect state electrical energy policy programs;

(2) an assessment of the energy resources available to the state for electrical generating, including, among others, fossil fuels, nuclear, hydroelectric, wood, wind, and solar energy;

(3) estimates of the level of statewide and service area electrical energy demand, including load fluctuations for each year in the forthcoming five, ten, and 20-year periods; and

(4) a detailed exposition, including capital requirements and the estimated cost to the consumers, of how such demand shall be met based on the assumptions made in subsection (b)(1) of this section and the policies set out in subsection (c) of this section.

> (c) In developing the plan, the Department shall take into account the protection of public health and safety, preservation of environmental quality; the potential for reduction of electrical demand through conservation, including alternative utility rate structures; use of load management technologies; efficiency of electrical usage; utilization of waste heat from generation; and utility assistance to customers in energy conservation.

Id. at §202. Public hearings are held for the plan. Id.

The Department has broad authority to require the submission of data by utilities. Id. There is no methodology prescribed by statute which must be utilized by the utilities in making the reports; nor are there statutory criteria for their review and acceptance.

III. Timing and Stages in Power Plant Decision-making:

Any utility planning to apply to the PSB for a certificate of power plant approval must submit the plan to municipal and regional planning bodies 45 days prior to application to the PSB for a certificate. Id. at tit. 30 §248. Municipal planning agencies are required to make their recommendations, if any, to the PSB at least seven days before the hearing is filed.

Hearings must be held on application for certificates. Notice for such hearings must:

> be given to the attorney general and the operators of public service, the department of health, agency of environmental conservation, historic sites board, scenery preservation council, state planning office, agency of transportation and by certified mail shall be given to the chairman or director of the municipal and regional planning commissions, and the municipal legislative body for each town and city in which the proposed facility will be located not less than 30 days prior to the hearing. Notice of the public hearing shall be published in a newspaper of general circulation in the county or counties in which the proposed facility will be located two weeks successfively, the last publication to be at least 12 days before the day appointed for the hearing.

Id. at §248.

IV. Practice and Procedure:

Local planning bodies may hold a hearing on any construction proposal. Id. at tit. 30 §248(d). The PSB shall hold a hearing in a county in which any portion of a facility is proposed to be located.

New legislation enacted in 1980 provides for a Director of Public Advocacy within the Department. Id. at §2. The director's role in rate making and power plant certification is not yet clear, although the statute directs him to "represent the interests of the people of the state," Id., and allows him to "request the attorney general or a member of the Vermont bar to represent the public or the state."

V. Projected Construction:

Burlington Electric Light Department has filed an application for authorization to construct a 50 MW wood burning power plant. Several low-head hydro projects are also proposed.

Virginia

I. Basic Regulatory Approach:

There are several agencies involved in the regulation of electric utilities in Virginia.

A. The Virginia State Corporation Commission ("Commission")

The Commission is the principal agency concerned with public utility regulation in Virginia. Its enabling statute requires utilities intending to construct a new electric generation facility capable of producing 100 MW or more to submit an applica- to the Commission setting forth the nature of the proposed construction and the necessity therefore in relation to the projected forecast also required from the utility. Va. Code §56-234.3. The Commission then schedules a hearing at which it determines the "necessity of the proposed generation facility." Id. If the facility is found to be both needed and environmentally acceptable, the Commission grants a Certificate of Public Convenience and Necessity which permits the utility to construct the plant. Id. at §56-46.1. The Commission is also granted the sweeping authority to investigate and monitor the construction projects of any utility to assure that such projects are being conducted in an economical, expeditious, and efficient manner. Id. at §56-234.3.

Need for power issues may also arise in the context of Commission consideration of rate increases associated with planned additions to capacity. Encouragement of efficient use of facilities is a factor to be considered by the Commission in setting rates. Secretary of Defense v. Chesapeake and Potomac Telephone Company 217 Va. 149, 225 S.E. 2d 414 (1976). The Commission is also granted broad regulatory authority to investigate efficiency issues bearing on need for power and choice of technology considerations.

> Whenever uneconomical, inefficient or wasteful practices, procedures, designs, or planning are found to exist, the Commission shall have the authority to employ, at the sole expense of the utility, qualified persons . . . who shall audit such practices, procedures, designs, or planning and recommend to the Commission measures necessary to correct or eliminate such practices, procedures, designs, or planning.
>
> The Commission shall have the power to approve, disapprove, or alter the utility's program in a manner consistent with the best interest of the Commonwealth. Va. Code. §56-234.3.
>
> It shall be the duty of the Commission to investigate from time to time the acts, practices, rules, or charges of public utilities so as to determine that such acts . . . are reasonably calculated to promote the maximum effective conservation and use of energy and capital resources. (The Commission is then given broad powers to enforce this mandate.) Id. at §56-235.1.
>
> The Commission shall disallow recovery of any fuel costs it finds without just cause to be the result of failure of the utility to make every reasonable effort to minimize fuel costs or any decision of the utility resulting in unreasonable fuel costs, giving due regard to reliability of service, economical generation mix, generating experience of comparable facilities, and minimization of the total costs of providing service. Id. at §56-249.6.

B. Coal and Energy Commission:

Virginia has also attempted to foster the development of coal as an energy resource through the Virginia Coal and Energy Commission ("CEC"). See Id. at §9-145.1 et seq. Among other duties, it is required to "study all aspects of coal as an energy resource and . . . ways in which the Commonwealth can take action on energy-related problems; investigate and consider such problems and questions relating to the field of coal and energy utilization alternative energy sources as may be submitted; (study) energy conservation, including the promotion and implementation of initiatives for the public at large to conserve energy." The CEC consists of 20 members: five from the Senate, eight from the House, and seven from the state at large.

C. Solar Energy Center:

This agency is largely a clearinghouse for solar energy information and planning and was created to foster the use of this form of energy. Id. at §10-214.

II. Demand Forecasting and Planning:

Utilities capable of generating 100 MW or more of electricity are required to file annual five and ten-year forecasts with the Commission. Id. at §56-234.3. The forecasts much include, inter alia, an estimate of the anticipated required capacity as well as research and development procedures employed to develop new energy resources. Id. No mention is made in this provision for consideration of conservation or alternative methods of generation in the planning process.

If the Commission finds that an inefficient practice exists, it has the authority to audit and investigate, employ outside consultants, and alter the utility's program in a manner consistent with the public interest. Id.

III. Timing and Stages in Power Plant Decision-making:

There are no time limits on Commission decisions on the necessity for proposed units.

IV. Practice and Procedure:

A. Coordination:

There is no statutory authority requiring the participation of other agencies in the siting process. The Commission is, however, required to give consideration to the effect of the facility on the enviornment and local zoning plans if required to do so, and to receive and to give consideration to all reports that relate to the proposed facility by state agencies concerned with environmental protection. Id. at §56-46.1.

B. Public Participation:

In reaching a decision on the granting of a permit, the Commission must also hold a public hearing and consider the testimony given at the hearing in reaching its decision on the application. Id. at §56-234.3.

There is a Division of Consumer Council in the Office of the Attorney General that represents the consumer's interest in proceedings before the Commission. Id. at §2.1-133,1.

V. Projected Construction:

There are ten projected units representing a total additional capacity of 5,185 MW. Seven of the plants will be hydroelectric and three nuclear. All of the plants have been delayed at least a year. U.S. Department of Energy, Inventory of Power Plants in the United States (December, 1979).

Washington

I. Basic Regulatory Approach:

The Washington Utilities and Transportation Commission ("UTC") is empowered with traditional authority over the rates and services of electric utilities. The law provides that "(utilities) shall furnish and supply such service, instrumentalities and facilities shall be safe, adequate and efficient, and in all respects just and reasonable." Wash. Rev. Code. §80-28.010. Though this language can be read to imply authority for considering need and technology choice issues, the Commission has not, to date, exercised this power. Washington electric utilities are also subject to regulation by other state agencies.

The state has established a streamlined siting process for the certification of gas and electric power plants. Utilities are forbidden to begin construction of a stationary thermal power plant with a generating capacity of 250,000 kilowatts or more (or a floating plant capable of producing 50,000 watts or more) unless they first obtain a certificate from the Energy Facility Site Evaluation Council ("Council"), a 14-member inter-agency body which also includes a representative of any political subdivision where a facility is proposed. Id. at §§80.30.020(14), 80.05,030. The Council studies the application and makes a recommendation to the Governor who has sole ultimate authority to grant or deny the certification. Id. at §80.50.100. (Discussed infra).

As far as the ultimate decision is concerned, the statute specifies no standards for the Governor's decision. Since the process has not been challenged in court, the constraints on the Governor's decision are uncertain (e.g., whether the Governor may rely on evidence outside the record, ex parte contacts, etc.).

The siting process is designed to be essentially one stop. The law provides that "the issuance of a certification shall be in lieu of any permit, certification or similar document required by any department, agency, division, bureau, commission, board, or any political subdivision of this state, whether a member of the Council or not. Id. at §80.50.120. The Council has interpreted this provision to preempt other state agencies. The Council's interpretation has not, as of February 1980, been disputed.

While the Council lacks explicit authority to decide the need for power and the choice of technology, the legislative intent evident in the statute could provide a basis for such action. "(I)t is the policy of the state of Washington that (power plants) will produce minimum adverse effects on the environment (and will) provide abundant energy at reasonable cost." Id. at §80.50.010. Determining the minimum adverse effects would appear to require an assessment of the environmental impact of a facility. Theorectically, absent a showing of need and a finding that the applicant will use the appropriate type and size of generating facility, the Council would not be able to approve the application. To date, however, the Council has not considered these factors in recommending approval of any units.

In any event, the Council has construed the siting process as being subject to the Washington State Environmental Policy Act, Wash. Admin. Code. §463-08-24, which requires an environmental impact statement (EIS) on any major state action affecting the environment. The EIS must address issues such as the existence of alternatives to the proposal (including the "no action" alternative) Wash. Rev. Code. §43.21C.030. This would appear to include whether there is a need for the project or whether there are alternatives which do not require licensing.

Skagit County (and various citizen groups) are presently litigating the validity of the statute. The suit challenges the certification of a nuclear power project by the Council on the groupds that there are inadequate standards expressed in the state laws for certifying such projects. Therefore, the plaintiffs argue, the certification is void and construction on the project should be halted. As of February 1980, the case was pending before the Washington Supreme Court. See Docket No. 46137. The resolution of the controversy may result in a significant revision of the method by which Washington makes need for power and choice of technology decisions.

The process would also be altered by the passage of legislation currently under consideration in the Senate Energy and Utilities Commission. One bill would require that all feasible means of conserving can be made on whether to construct a new electrical generating facility. The Bill would also require that the most cost effective means of conserving or generating energy be selected.

II. Demand Forecasting and Planning:

The UTC enabling statute requires only that the utility submit an annual statement of gross revenue. There is no requirement that the utility submit a load forecast or long-range plan to the UTC.

The recently created State Energy Office has the power, inter alia, to obtain forecasts of energy requirements and inventories of energy from any producer or supplier.

In practice, the leading forecasting authority is the Pacific Northwest Conference Committee (a regional body composed of public and investor-owned electric utilities and the Bonneville Power Administration) with effective oversight exercised by the Washington regulatory agencies.

III. Timing and Stages in Power Plant Decision-making:

The statute imposes the following time limits upon the process, although the Council has authority to waive the limits for good cause shown. Additionally, the practical effect of exceeding the time limits (e.g., should the Governor take more than 60 days to reach a decision) is unclear.

0 days	Application submitted.
Within 60 days	The Council shall hold informational hearing in the county of proposed site. Wash. Rev. Code. §80.50.90.
Prior to recommendation	A public hearing, conducted as a "contected case" under the Washington APA, must be held.
Within 12 months	The Council shall report to the Governor, whereupon the Governor shall have 60 days to take final action.

IV. Practice and Procedure:

A. Public Participation:

The Council regulations provide liberal rules for participation and intervention. Any person who claims a pertinent interest relating to the proposed site and is so situated that the disposition of the application may "as a practical matter impair or impede that interest" may intervene. Wash. Admin. Code. §463-08-025.

The statute provides for a "counsel for the environment" who shall be an assistant attorney general or special assistant attorney general charged with representing the public interest in siting proceedings. Wash. Rev. Code. §80.50.080.

B. Hearings:

As noted, the law envisions two proceedings, the informational hearing held early in the process (within 50 days of application) and the formal hearing held prior to the Council's recommendation to the Governor. The former is designed essentially to serve notice to the public regarding the existence and scope of the project proposal, while the latter is a formal, adversarial procedure. Wash. Admin. Code. §§463-08-035, 463-08-040.

C. Other Agencies:

Coordination with other agencies is achieved by having the interested agencies directly involved in the process as noted above.

V. Projected Construction:

Washington has 17 projected units representing a total capacity of 10,050 MW. Seven of the projected plants are nuclear, four oil, and six hydroelectric. Nine of the projected plants have been delayed for more than a year, though it is unclear whether the delay is likely to affect system reliability. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

West Virginia

I. Basic Regulatory Approach:

Any utility desiring to begin the construction of an electric generating plant must first obtain a Certificate of Public Convenience and Necessity from the Public Service Commission ("Commission") W. Va. Code. §2402-11. Though there is no explicit requirement that the Commission consider need for power and choice of technology issues in the certification process, it seems likely that such issues may influence the decision because of the overriding state policy expressed in recent litigation.

H.B. 1280, adopted and in effect since its passge provides, inter alia, that it is the policy of the state that the Commission shall:

> Provide the availability of adequate, economical and reliable utility services throughout the state;
>
> Encourage the well-planned development of utility resources in a manner consistent with state needs and in ways consistent with the productive use of the state's energy resources, such as coal;
>
> Encourage energy conservation and the efficient and effective management of regulated utility enterprises; and
>
> The Commission is charged with the responsibility for appraising and balancing the interests of current and future utility customers, the general interests of the state's economy, and the interests of the utilities . . . Id. at §24-1-1(b).

Additionally, the legislature urged inquiry into, though it did not require the adoption of, declining block, time of day and lifeline rates, peak load pricing, and load management techniques. Id. at §24-1-1. Generally, the legislative findings contained in the new statute are broad enough to require the consideration of need for power in any Commission action.

The Commission rules require applicants to submit a concise statement of the reasons why a certificate should be issued. PSC Rules of Practice and Procedure, Rule 10(c). The burden of proving public convenience and necessity is on the applicant. W. Va. Code. §24-2-11.

In a 1927 case, the West Virginia Supreme Court of Appeals declared that one of the principal purposes of the Commission is to "prevent . . . unnecessary duplications of plants and facilities and adjust burdens upon the public resulting therefrom . . ." United Fuel Gas Company v. Public Service Commission, 103 W. Va. 306, 138 S.E. 388 (1927). Such language clearly authorizes the Commission to consider need in certification proceedings.

There is also explicit statutory authority for need for power assessment in one circumstance. A utility applying for a certificate to construct a high voltage transmission line must justify the need for the facility in its application to the Commission. W. Va. Code. §24-2-11. In order to grant the certificate, the Commission must find that the power line will result in an acceptable balance between projected power needs and environmental factors. Id.

Similar issues may arise in the context of ratemaking. The statute requires that rates be "reasonable." Id. at §24-2-3. That standard appears sufficiently broad to allow the Commission to deny additional rate increases if requested to finance additional capacity the Commission believes unnecessary.

II. Demand Forecasting and Planning:

The statute does not specifically require long-range forecasts of energy demand by utilities either as an incident of doing business or in conjunction with facility approval. *Id.* at §24-1-1. The law does, however, require the Commission to report annually on the current balance of supply and demand for natural gas and electric utility services in the state, together with an analysis of the probable balance for the next ten years. *Id.* at §24-1-1(d)(3).

III. Timing and Stages of Power Plant Decision-making:

Decisions on power plant siting must be reached within 400 days of the filing of the application by the utility (unless the projected total cost of the project is $50 million or less, in which case, the Commission shall have 270 days to make a decision. *Id.* at §24-2-11. Regardless of project size, a decision must be rendered within 90 days after final submission of any such application for decision after hearing. *Id.*

IV. Practice and Procedures:

A. Procedure:

The statute provides that the Commission shall not be bound by the "technical rules of pleading and evidence;" the Commission may "exercise such discretion as will facilitate its efforts to understand and learn all the facts bearing upon the right and justice of the matters before it. *Id.* at §24-1-7. It also contains authority for the Commission to promulgate its own rules. *Id.* The Commission's rules contain a form (#5) and a checklist for applications by municipalities or public service districts for a Certificate of Public Convenience and Necessity. Rules of Practice and Procedure, Appendix. The checklist and form require that sufficient evidence be presented to show whether the public convenience and necessity require issuance of the certificate whether the proposed system will provide adequate service . . . and whether the proposed rates are just and reasonable.

Review of Commission action is by petition to the Supreme Court of Appeals within 30 days of the entry of a final order. W. Va. Code. §24-5-1.

B. Public Participation:

The enabling statute granting power to the Commission provides that reports filed by utilities shall be made available to the public. *Id.* at §24-2-14. The same statute, as recently amended, requires the Commission to create a Division "which shall act as an advocate for the position and in the interest of all consumers." *Id.* at §24-1-1. The powers and duties of the Division are not specified by statute.

The law exempts from the state's sunshine provision "meetings of the Commission during which it makes a decision or deliberates toward a decision on any matter." *Id.* at §24-1-7. Two circumstances require hearings: (1) a Certificate of Public Convenience and Necessity proceeding requires a hearing, and (2) if a proposed tariff is suspended, a hearing is required. PSC Rules of Practice and Procedure, Rule 12(a)(2) require that all hearings be open to the public. In addition, the Commission rules provide both for protestant and intervenor participation. Rule 12(d)(f).

C. Coordination:

The Governor's Fuel and Energy Office must:

Evaluate and assess energy policies and their impact upon the economy and the environment and make recommendations thereon to the Governor and the Legislature . . .;

Promote energy conservation measures; and . . .

Advise all state departments and agencies in related activities. Id. at §5-17-7.

V. Projected Construction:

There are no applications for Certificates of Public Convenience and Necessity for new power plant construction pending before the W. Va. Public Service Commission or the West Virginia Courts.

Wisconsin

I. Basic Regulatory Approach:

Wisconsin's power plant licensing scheme utilizes a detailed long-range planning process. Utilities prepare plans forecasting both their own needs and construction plans and those for the state as a whole (Wisc. Stat. Ann. §§196.491(2)(a)(1) (West). These plans are reviewed by the Public Service Commission ("PSC") in public hearings. Id.

Generating facilities larger than 12 kw and transmission facilities larger than 100 kv may not be built without a Certificate of Public Convenience and Necessity. Id. at §196.491(3)(a). The PSC may not issue such certificates unless the facility "substantially" complies with the plan. Id. at §196.491(3)(d)(1). Other criteria include:

- that the facility is "necessary to satisfy the reasonable needs of the public . . ."
- the design and location of the plant is in the public interest.
- the facility will not have "undue adverse impacts . . ."
- the facility will not un reasonably interfere with "orderly . . . development . . ." Id.

Furthermore, the facility may not be approved if it "provides facilities unreasonably in excess of the probable future requirements . . ." or will "add to the cost of service without proportionately increasing the value of quantity (of service)." Id. at §196-491(4).

All power generating utilities, public municipal, and investor-owned are subject to the PSC's planning and licensing process.

The PSC may not preempt the findings, licenses, or other requirements of the Department of Natural Resources, or other state or local agencies. Decisions on power plants and utility rates are subject to the state's Environmental Impact Statement (EIS) requirement. Id. at §1.11; see also, Wisconsin Environmental Decade v. P.S.C., 256 N.W. 2d 149, 79 Wis 2d 409 (1977). The EIS requirement does not apply to the planning processes, however, the PSC must complete a similar environmental "assessment."

II. Demand Forecasting and Planning:

In every even numbered year, each utility prepares a long-range plan. Part of the plan details electrical demand for the next 20 years. Wisc. Admin. Code. §111.22. That section must detail the assumptions and method of projection. Id. Another part of the plan details the facilities needed to meet demand. Id. at Wisc. Admin. Code. §111.13. That section identifies construction scheduled to commence and facilities scheduled to go out of service for the next 15 years. The regulations require a third section which details alternatives and the reasons justifying the proposal as submitted. Id. at §111.135. Furthermore, conservation and load management alternatives must be described. Id. at §111.17.

The utilities must prepare together similar information for the state as a whole. Id. at §111.225. Part of this plan must include a discussion of "system generation alternatives," Id. at §111.225 and conservation alternatives. Id. at §111.28.

The PSC must hold hearings on both utility and statewide plans. The PSC must approve plans. The PSC reviews these plans in light of their independent forecasts; one plan was rejected because "no reliable forecast of need was given." See, Findings of Fact Conclusion of Law and Order Northern States Power Company et. al. Docket #CA-5477 at 3, citing Advance Plan 1, Docket #05-EP-1.

Demand for electricity is also considered in the application for a Certificate of Public Convenience and Necessity. Prior to issuance of a certificate, the PSC must find that the proposed facility "is necessary to satisfy the reasonable needs of the public for an adequate supply of electric energy." Wisc. Stat. Ann. §196-491(3)(a)(2). Generally, a facility must comply with the most recent advance plan, but compliance may be waived if the PSC finds "that the need for the facilities . . . could not have been reasonably foreseen by the utility at the time of filing . . ." Id. at §196.491(3)(a)(1).

Available cases indicate that the PSC undertakes extensive review of need for power during the licensing process. In one case, a nuclear plant was refused a license because of insufficient showing of demand. Oil backout benefits were not discussed, but the utility forecast was criticized for failure to consider "load management, rate structure reform, or the application of alternative energy sources and conservation." See, In re of Northern States Power Company, supra, at 7).

III. Timing and Stages in Power Plant Decision-making:

120 days	Engineering plan submitted.
0 days	Application accepted.
6 months before construction (large)* - 18 months before construction (bulk)**	Application for Certificate of Public Convenience and Necessity.
10 days after application	Notice to affected municipalities.
20 days after application	Application for environmental permits.
30 days before hearing	Published Notice of Hearing.
As scheduled	Hearing.
150 days (large) - 480 days (bulk)	Final decision.

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* Generating equipment with capacity between 12 MW and 300 MW.

** Generating equipment with capacity in excess of 300 MW.

IV. Practice and Procedure:

Public hearings must be held on environmental impact statements. Wisc. Admin. Code. NR §150.09. Adjudicatory hearings must be held on advance plans, Wisc. Stat. Ann. §196.491(2)(g), and on Certificates of Public Convenience and Necessity. Id. at §196.491(3)(b); Wisc. Admin. Code. §2.94. Intervention and participation by state agencies and private parties is generally encouraged. Representation by legal counsel is not required. A consumer advocate is not provided. However, intervenor financing is now being considered. Docket #1-AC-30.

V. Projected Construction:

Evaluation of need for power and choice of technology have been key elements in reducing projected construction in Wisconsin. In April 1979, 13 generating units were projected for construction, with a total capacity of 4,663 MW. At least one nuclear units (1,100 MW) has been denied a license. Several others have yet to apply and still others have delayed their on-line dates because of revised load forecasts. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979). Construction plans may be delayed further after the adoption of new biennial plans.

Wyoming

I. Basic Regulatory Approach:

A. Industrial Siting Council:

An electric utility capable of generating 100 MW or more is a "facility" within the meaning of the Industrial Development Information and Siting Act and thus comes under the certification procedures specified in that law, 1975 Wyo. Sess. Laws. ch. 169, §1 (codified at Wyo. Stat. §§35-12-101 et seq.) The statute requires a utility to procure a permit from the Council before the utility can construct a new power plant. Id. at §35-12-106. A facility with an estimated construction cost greater than $63 million* is regulated in the same manner, regardless of generating capacity.

The Industrial Siting Council consists of seven residents of Wyoming appointed for staggered six-year terms by the Governor, with the advice ane consent of the Senate. The members are reimbursed on the same basis as state regulators (a per diem with expenses added). Id. at §35-12-104.

Government entities are exempt from Council regulation as are gas utilities. Id. at §35-12-121. The Industrial Siting Council does not preempt other state or local agencies. Where construction of a facility requires the approval of another agency, the statute explicitly provides for the latter agency's finding (within its area of jurisdiction) to be binding on the Council.** The finding binds the Council only on the narrow issue that is statutorily entrusted to the other agency; it does not effect the issuance or denial of a permit under the Industrial Siting Act. Id. at §35-12-104.

The Council may take any of several courses of action on an application. If it is satisfied that the project complies with all applicable laws, poses no threat of "serious injury" to the environment, and presents no substantial risks to health, safety, or welfare, it may grant the application without further study. Aside from granting the application in full, the Council can also grant the application conditioned on specified changes or a specified construction schedule. ("Show cause" orders have also been used to clarify issues in this proceeding.) Finally, the Council may reject the application pending further study, although reportedly, it has never done so.

The "additional study" provided for in §35-12-111 could involve need for power and choice of technology considerations. The topics which the statute allows the Council to specify for further study include "consumer demand and future energy needs" and "efficient use of energy forms." More importantly, the mandatory criteria for the final decision on the proposal require that the Council find that any environmental impact is reduced to an extent deemed acceptable considering the state of the available technology and the nature and economics of the various alternatives.

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* The minimum amount was originally $50 million, but the statute provides for incrases reflecting inflation.

** This limitation has been characterized as a serious constraint on the range of issues state agencies may address. Shroeder and Enholm, The Need for Power Issue, p. 77 (1979).

B. Public Service Commission ("PSC")

The PSC regulation extends to any utility regardless of generating capacity, except utilities owned and operated by municipalities. Id. at §37-1-101. The PSC is composed of three salaried members appointed by the Governor with the advice and consent of the Senate to staggered six-year terms.

No public utility can begin construction of a power plant without first obtaining a Certificate of Public Convenience and Necessity from the PSC. In its decision concerning the granting of the certification, the PSC will consider, inter alia, the necessity of additional service in the community. Id. at §37-2-205.

The PSC also exercises control over technology choice (although it has no explicit statutory authority to do so). It exercises passive review, i.e., it will evaluate the utility's choice, but it will not mandate the construction of a certain type of plant.

C. State Engineer:

Any utility that proposes a facility that requires the use of any water of the state is required to prepare and submit to the state engineer a water supply and yield analysis. The engineer is required to render his opinion on the analysis. Id. at §35-12-107.

The Wyoming siting procedure is a two-tiered process. Applications are subject to a preliminary review to ensure that they are in technical compliance with the Act and, if the Council determines that it is necessary, to a second, more thorough review. To date, no application for a power plant site has been required to undergo the second stage of the application process. See, Schroeder and Enholm, supra, at p. 75.

The Council's policy of abstaining from a determination of need during the first stage review, coupled with the de facto absence of the second stage, results in need for power issues being resolved by the PSC when that body issues or denies a Certificate of Public Convenience and Necessity. Generally, the need determination is not a crucial step in Wyoming since public utilities and power cooperatives will apply to build a power plant only to export the power.

II. Demand Forecasting and Planning:

The Siting Council Statute requires each utility to file a plan each year describing the location, size, and type of all facilities to be owned, operated, or removed from service during the planning period (five years). Wyo. Stat. §35-12-120. These plans are advisory only and the Council may allow reasonable deviation from the plan without penalty.

III. Timing and Stages in Power Plant Decision-making:

There are no relevant time limits applicable to the PSC. A brief outline of Siting Council time limits follows:

0 days	Application for a permit received.
Not less than 30 days nor more than 90 days after application received	The Director of the Council serves notice on local governing bodies, files a copy with the county clerk, and places an ad in a newspaper of general circulation.
Not less than 90 days nor more than 120 days after application received	The Director shall schedule a hearing and notify applicants and governments and shall conduct the hearing.

Within 60 days of hearing	The Council shall make its initial order. Id. at §35-5-2.87(a).
Within 10 days of decision	Notice to applicant and parties.
Within 30 days of decision	The Council shall prepare a study plan and review it with applicant.
Within 180 days of start of study	The study shall be completed. (The Council may grant two extensions not to exceed 60 days.)
Within 30 days of a final decision	Time period in which to file in State District Court for judicial review of Council action.

IV. Practice and Procedure:

A. Coordination:

Wyoming provides for a high degree of coordination among its agencies. The Council is required to consult with the PSC, the Conservation Commission, and 11 other state bodies in its study of the import of the proposed facility. The siting statute does not provide the Council with unfettered decision-making authority. Although it has ultimate authority to certificate proposed plants, the statute requires the Council to defer to the agency which traditionally exercised jurisdiction over the matter in issue. See, discussion, supra. The Council is, however, empowered to override local law.

B. Public Participation:

Wyoming apparently attempts to foster public participation through increased awareness of utility action. Thus, for example, the statute genera-ly requires notice by publication of the major steps in the process. Additionally, the hearing must be held "as close as is practicable" to the proposed facility. Wyo. Stat. §35-12-109. Local governments must receive actual notice of the various actions taken.

C. Procedure:

The hearing is treated as a "contested case" for purposes of the Wyoming APA. Id. at §§9-4-105, 9-4-115. Any person, including nonparties, may make a limited appearance by filing a statement. Environmental groups (with a Wyoming chapter) have automatic standing. Id. at §35-12-109.

V. Projected Construction:

There are seven power plants projected for construction in Wyoming representing a total proposed additional capacity of 3,080 MW. All of the facilities will be coal-fired steam plants; two have been delayed more than a year. U. S. Department of Energy, Inventory of Power Plants in the United States (December 1979).

APPENDIX B

COMMITTEE QUESTIONNAIRE TO STATE AGENCIES AND PUBLIC UTILITIES

AMERICAN BAR ASSOCIATION
SPECIAL COMMITTEE ON ENERGY LAW
NATIONAL ENERGY PROJECT

survey of

Need For Power and Choice of Technology
Decision-making in the States

Completed by: ______________________________
title ______________________________
agency ______________________________
address ______________________________
____
telephone no. ______________________________

Please use the enclosed self-addressed stamped envelope and return the completed survey to:

National Energy Project
American Bar Association
1800 M St., N. W.
Washington, D. C. 20036

The American Bar Association's Special Committee on Energy Law has embared upon a project designed to explore answers to the question of how the states determine the need for additional electrical power and, once a need is assessed, how they determine the appropriate technology to meet that need (hereafter need for power and choice of technology, respectively). This study will focus on decision-making procedures, rather than on the merits of substantive policies. The final report will provide a detailed description of power plant licensing in the fifty states which we hope will be a useful reference work. In addition, the Committee intends to recommend possible initiatives to submit to the states for their consideration.

Your assistance at this point in our project will be extremely helpful. Two items are attached for your review and comment. Item 1 is a narrative description of your state's statutes and regulations based upon information currently available to us. We are asking that you review it for both accuracy and completeness. Item 2 is a set of questions which seeks to elicit more detailed information about state procedures and policies which may not be found in the statutes and regulations. We are asking that you answer these questions to the extent possible.

One final word of explanation: this study is not another examination of energy facility siting, even though some of the questions you are being asked are frequently raised in that context. The Committee is exploring questions or procedural delay, fairness, and thoroughness, especially with regard to the consideration of alternatives to new generating capacity. Your contribution to what we feel will be an informative and useful set of findings will be vital. Thank you for your cooperation.

ITEM 1 STATE NARRATIVE

Instructions: Please review the attached state narrative for accuracy and completeness. Where you find it to be misleading, incomplete, or simply inaccurate, please correct those deficiencies on the narrative itself, or on the reserve side of the narrative.

In addition, please inform us whether there has been any significant litigation in your state concerning power plant licensing over the last 10 years. If there has been, please identify the decisions with names and citations and describe briefly their impact on procedures. If litigation is still pending, please describe its current status. This information should be provided on a separate sheet of paper and attached to the state narrative when it is returned to the A.B.A. Committee.

ITEM 2 QUESTIONNAIRE SURVEY

Instructions: The questions which follow are intended to supplement the state narrative as well as to provide more detailed information on how the statutes work in practice. We have tried to avoid duplication between the narrative and questionnaire. However, where this has not been possible, and where you believe that you have already disposed of a question by correcting a statement in the narrative, please indicate this rather than repeating the information.

A. Please answer the following questions related to need for power as specifically as possible:

1. What agency, official or board is responsible for the need for power determination?

   a. If a board (or other multi-member body), please identify the statutory composition.

2. What is the statutory authority for need for power determination?

3. Is there an established procedure for decision making regarding need for power? If so, please summarize (Administrative rules or procedures, etc.).

4. Is the determination binding on other government agencies? Yes _________ No _________ If so, which agencies?

5. Does the need for power determination preempt local jurisdictions? Yes_________ No___________

6. Is the need for power determination made

   a. explicit and clearly identified _________, or subsumed in overall project approval _________? (check one)
   b. in the context of a statutory requirement for certification of need _________, advance planning _________ rate review _________, financial approvals _______________, eminent domain authority, or other stage _________ (explain) (please number those that apply to indicate order of proceedings)
   c. If advance planning procedures are used, are they binding on later stages of the licensing process?

      ____

7. If your state has no formal procedure for need for power determination (i.e. no certification), how is the investment plan and construction authority for new power plants approved?

   Which of the following control mechanisms are applied?

   a. Formal rate proceedings (i.e., rates, revenues)
   b. Utility information
   c. CWIP - AFUDC levels
   d. Rate of return analysis
   e. Allowance for working capital
   f. Tax adjustments
   g. Eminent domain
   h. Sales of securities (indebtedness, bonds, etc.)
   i. Other

b. Please answer the following questions, related to choice of technology, as specifically as possible:

1. Does your state regulatory authority determine choice of technology in power plant certification procedures?

   Yes __________
   No __________
   Sometimes __________ (please explain)

2. What agency or official is responsible for choice of technology determinations?

3. What is the statutory authority for choice of technology determinations?

4. Is there an established procedure for decision making regarding choice of technology? If so, please summarize.

5. Is the determination binding on other government agencies?

   Yes______ No ______ If so, which agencies?

6. Is the choice of technology determination before, or in conjunction with, power plant certification?

   Prior ________
   With ________
   Neither________ (please explain)
   Not done _____

7. If your state has no formal procedure for determining choice of technology, how is the investment plan and construction authority for new power plants approved?

8. Which of the following factors are considered?

	Yes	No	Sometimes
a. Rely on utility choice	_____	_____	_____
b. Cost of investment	_____	_____	_____
c. Cost of operation	_____	_____	_____
d. Cost to consumer	_____	_____	_____
e. Environmental concerns	_____	_____	_____
f. Fuel cycle status	_____	_____	_____
g. Reduce reliance on oil	_____	_____	_____
h. Promote diversity	_____	_____	_____
i. Others (please specify)	_____	_____	_____

9. In the final decision making process on new power plants, which of the following factors are explicitly considered for certification of an application as well as need for power and technology choice?*

	Always	Never	Sometimes
a. National energy policy objectives	_____	_____	_____
b. State energy policy objectives	_____	_____	_____
c. Conservation of non-renewable resources	_____	_____	_____
d. Environmental protection	_____	_____	_____
e. Alternative energy sources	_____	_____	_____
f. Public health & safety	_____	_____	_____
g. Utility system reliability	_____	_____	_____
h. Preservation of special lands (e.g. agricultural)	_____	_____	_____

---

* Please explain when a mechanism in this category is used, if possible.

C. Please answer the following questions, regarding government coordination as specifically as possible:

1. Are there provisions for other agencies to participate in the need for power and choice of technology determination?

	Need for Power	Choice of Technology
Yes (formal participation)		
Yes (informal participation)		
No		

2. What formal or informal mechanisms are used to coordinate participation or other governmental agencies in the decision-making process?

	Need for Power	Choice of Technology
Memoranda of Understanding		
Executive Orders		
Statutory		
Other (identify)		

3. Are there any formal or informal mechanisms to coordinatd need for power and choice of technology with:

	State	County	Local
Development Plans			
Land Use Plans			
Coastal Zone Management			
Environmental Protection			

D. Please answer the following questions, relating to public participation, as specifically as possible:

1. Are there provisions for public participation in the need for power and choice of technology determinations?

Need for power Yes ____ No ____
Choice of Technology Yes ____ No ____

2. If so, at what step in the decision-making process is public participation encouraged?

	Advance Planning	**Public* Hearing**	**Adjudicatory Hearing**	Direct Appeal	Other
Need for Power					
Choice/Technology					

3. Which of the following mechanisms are provided to facilitate and encourage public participation?

Mechanisms	Need for Power		Choice of Technology	
	Yes	**No**	**Yes**	**No**
a. Advance Plan (Forecasts) Hearings				
b. Certification Hearings:				
1. Public				
2. Adjudicatory				
c. Written Submissions				
d. Intervention (citizen)				
e. Citizen Advocate's Office				
f. Intervention (local govt.)				
g. Public access to information				

4. Which of the following, if any, are provided for public participation:

	Need for Power		Choice of Technology	
	Yes	No	Yes	No
Public funding				
Liberal Intervention rules	___	___	___	___
Open access to information	___	___	___	___
Free or low cost documents	___	___	___	___
Free or low cost transcripts	___	___	___	___
Hearing party status	___	___	___	___

5. What restrictions or limitations, if any, have been imposed on public involvement in the decision-making process?

Need for Power (please summarize)
Choice of Technology (please summarize)

E. Please answer the following questions, regarding information gathering and assessment, as specifically as possible:

1. In determining the need for power and reviewing the choice of technology alternatives, what information must a utility applicant submit in order to meet the requirements for approval?

	Need for Power		Choice of Technology	
	Yes	No	Yes	No
a. Long Range Forecasts				
1. 5 years	___	___	___	___
2. 10 years	___	___	___	___
3. 15-20 years	___	___	___	___
b. Forecast methodology description	___	___	___	___
c. Assessment of regional needs, including	___	___	___	___
1. importations of power	___	___	___	___
2. export of power	___	___	___	___
3. power pooling arrangements	___	___	___	___
d. description of alternatives to planned expansion	___	___	___	___
e. conservation as an alternative	___	___	___	___
f. projected capital investment	___	___	___	___
g. other (please summarize)	___	___	___	___

2. Does the state develop its own electric forecast?
Yes _____ No ____

3. If so, which state agency or unit of government prepares the forecast?

4. How frequently are the state forecasts developed?
annually ____ biannually ____ monthly ____ informally ____

5. What information, if other than that also submitted in utility forecasts, is included in the state forecast?

a.
b.
c.
d.

6. Is there a procedure for review of state forecasts?
Yes ____ No ____

7. If so, are there:
   a. hearings
   b. official findings
   c. legislative review
   d. judicial review
   e. other (please summarize)

8. Are the state forecasts conclusions binding on:

	Yes	No
a. subsequent licensing applications prior to next forecast	____	____
b. review of construction financing	____	____
c. regional power needs	____	____
d. other	____	____

F. Please answer the following questions, regarding regulatory delays and time limits, as specifically as possible:

1. Is there a statutory time limit for decisions on proposed power plants?
   Yes______ No ______

2. If so, are there provisions for a waiver of time limits?
   Yes_____ No _____

3. Has the statutory time limit been changed since the enabling legislation:
   Yes ____ No _____

4. If there is a time limit and it has been changed, please summarize the rationale for the change.

5. Has determination of need for power or choice of technology prevented meeting statutory time limits in power plant certification?
   Yes ______ No _______

   If Yes,
   a. please explain
   b. please identify the proceedings where this has occurred

   Name Docket No.

6. Have there been any significant delays for new powerplant certification:
   a. Yes ______ No ______
   b. If yes, which of the following have significantly contributed to the delay?

G. Please answer the following questions, regarding the role of the federal government, as specifically as possible:

1. Has the federal government been the cause of delay in decision making on new powerplants within or affecting your state since 1975?
   Yes ______ No ________

2. If so, what is your assessment of the cause of any delay:

		Yes	No	Not Sure	Poss.
a.	Public laws	____	____	____	____
b.	Federal agency rules and regulations	____	____	____	____
c.	Administrative delays	____	____	____	____
d.	Duplication of state efforts	____	____	____	____
e.	Federal schedules different from state schedules	____	____	____	____
f.	Other (specify)	____	____	____	____
		____	____	____	____

3. If there is duplication of state and federal efforts in review of power plant applications, where is this duplication most prevalent?

		Yes	No	Case Exam
a.	Need for Power	____	____	____
b.	Technology Choice	____	____	____
c.	Environmental Review	____	____	____
d.	Intervenor status	____	____	____
e.	Hearing Schedules	____	____	____

4. What forms of assistance has your agency received from the federal government in power plant certification procedures?

Financial _______ Technical ______ None ______
Other ______ (Please identify)

H. Please give us your ideas, both general and specific, on how to improve, expedite, or otherwise alter the existing procedure for determining power needs and choice of technology.

Appendix C

LIST OF STATE AGENCIES AND PUBLIC UTILITIES RECEIVING COMMITTEE QUESTIONNAIRE

State Agencies Surveyed

Alabama Public Service Commission
Montgomery, Alabama

Alaska Public Utilities Commission
Anchorage, Alaska

Arizona Power Plant and Transmission Line Siting Committee
Phoenix, Arizona

Arizona Corporation Commission
Phoenix, Arizona

Arkansas Public Service Commission
Little Rock, Arkansas

Colorado Public Utilities Commission
Denver, Colorado

Colorado Department of Natural Resources
Denver, Colorado

Connecticut Power Facilities Evaluation Council
Hartford, Connecticut

Public Service Commission of Delaware
Dover, Delaware

Florida Department of Environmental Regulation
Tallahassee, Florida

Florida Public Service Commission
Tallahassee, Florida

Goergia Public Service Commission
Atlanta, Georgia

Hawaii Public Utilities Commission
Honolulu, Hawaii

Idaho Public Utilities Commission
Boise, Idaho

Indiana Public Service Commission
Indianapolis, Indiana

Iowa State Commerce Commission
Des Moines, Iowa

Kansas State Corporation Commission
Topeka, Kansas

Kentucky Energy Regulatory Commission
Frankfort, Kentucky

Louisiana Public Service Commission
Baton Rouge, Louisiana

Maine Public Utilities Commission
Augusta, Maine

Maine Department of Environmental Protection
Augusta, Maine

Maryland Public Service Commission
Baltimore, Maryland

Maryland Power Plant Siting Program
Department of Natural Resources
Annapolis, Maryland

Massachusetts Energy Facility Siting Council
Boston, Massachusetts

Michigan Public Service Commission
Lansing, Michigan

Michigan Department of Natural Resources
Lansing, Michigan

Minnesota Energy Agency
St. Paul, Minnesota

Minnesota Department of Public Service
St. Paul, Minnesota

Mississippi Public Service Commission
Jackson, Mississippi

Missouri Public Service Commission
Jefferson City, Missouri

Montana Public Service Commission
Helena, Montana

Montana Department of Natural Resources and Conservation
Helena, Montana

Montana Energy Office
Helena, Montana

Nebraska Power Review Board
Lincoln, Nebraska

Nevada Public Service Commission
Carson City, Nevada

New Hampshire Public Utilities Commission
Concord, New Hampshire

New Jersey Board of Public Utilities
Newark, New Jersey

New Jersey Department of Energy
Newark, New Jersey

New Mexico Public Service Commission
Santa Fe, New Mexico

New York Public Service Commission
Albany, New York

North Carolina Utilities Commission
Raleigh, North Carolina

North Dakota Public Service Commission
Bismarck, North Dakota

North Dakota Natural Resources and Energy Coordinator
Fargo, North Dakota

Ohio Power Siting Commission
Columbus, Ohio

Oklahoma Corporation Commission
Oklahoma City, Oklahoma

Oregon Energy Facility Siting Council
Salem, Oregon

Oregon Public Utility Commission
Salem, Oregon

Oregon Department of Energy
Salem, Oregon

Pennsylvania Public Utility Commission
Harrisburg, Pennsylvania

Rhode Island Division of Public Utilities and Commerce
Providence, Rhode Island

South Carolina Public Service Commission
Columbia, South Carolina

South Dakota Public Utilities Commission
Pierre, South Dakota

Tennessee Energy Authority
Nashville, Tennessee

Tennessee Public Service Commission
Nashville, Tennessee

Public Utilities Commission of Texas
Austin, Texas

Texas Energy Council
Austin, Texas

Utah Public Service Commission
Salt Lake City, Utah

Vermont Public Service Board
Montpeleir, Vermont

Virginia State Corporation Commission
Richmond, Virginia

Washington Department of Justice
Olympia, Washington

Washington State Energy Office
Olympia, Washington

West Virginia Public Service Commission
Charleston, West Virginia

Wisconsin Public Service Commission
Madison, Wisconsin

Wisconsin Department of Natural Resources
Madison, Wisconsin

Wyoming Public Service Commission
Cheyenne, Wyoming

Wyoming Industrial Siting Administration
Cheyenne, Wyoming

Public Utilities Surveyed

Alabama Power Company
Birmingham, Alabama

Allegheny Power Service Corporation
Greensburg, Pennsylvania

Allegheny Power Service Corporation
New York, New York

Alpena Power Company
Alpena, Michigan

American Electric Power Service Corporation
New York, New York

Arkansas-Missouri Power Company
St. Louis, Missouri

Atlantic City Electric Company
Atlantic City, New Jersey

Baltimore Gas & Electric Company
Baltimore, Maryland

Bangor-Hydro Electric Company
Bangor, Maine

Black Hills Power & Light Company
Rapid City, South Dakota

Carolina Power & Light Company
Raleigh, North Carolina

Central and Southwest Corporation
Dallas, Texas

Central Hudson Gas & Electric Corporation
New York, New York

Central Maine Power Company
Augusta, Maine

Central Power & Light Company
Corpus Christi, Texas

Central Vermont Public Service
Corporation
Rutland, Vermont

The Cincinnati Gas and Electric Company
Cincinnati, Ohio

Consolidated Edison Company of
New York, Inc.
New York, New York

Consumers Power Company
Jackson, Michigan

Dallas Power and Light Company
Dallas, Texas

The Dayton Power & Light Company
Dayton, Ohio

Delmarva Power & Light Company
Wilmington, Delaware

The Detroit Edison Company
Detroit, Michigan

Duke Power Company
Charlotte, North Carolina

Duquense Light Company
Pittsburgh, Pennsylvania

Edison Sault Electric Company
Sault Ste. Marie, Michigan

El Paso Electric Company
El Paso, Texas

The Empire District Electric Company
Jefferson City, Missouri

Florida Power Corporation
St. Petersburg, Florida

Florida Power & Light Company
Miami, Florida

Green Mountain Power Corporation
Burlington, Vermont

Hawaiian Electric Company
Honolulu, Hawaii

Houston Lighting & Power Company
Houston, Texas

Iowa Electric Light & Power Company
Cedar Rapids, Iowa

Iowa-Illinois Gas and Electric Company
Davenport, Iowa

Iowa Power and Light Company
Des Moines, Iowa

Iowa Public Service Company
Sioux City, Iowa

Iowa Southern Utilities Company
Centerville, Iowa

Jersey Central Power and Light Company
Morristown, New Jersey

Kansas City Power & Light Company
Kansas City, Missouri

Kansas Power & Light Company
Topeka, Kansas

Kentucky Utilities Company
Louisville, Kentucky

Louisville Gas and Electric Company
Louisville, Kentucky

Metropolitan Edison Company
Reading, Pennsylvania

Middle South Service, Inc.
New Orleans, Louisiana

Minnesota Power & Light Company
Duluth, Minnesota

Mississippi Power & Light Company
Jackson, Mississippi

Missouri Power & Light Company
Jefferson City, Missouri

Missouri Public Service Company
Kansas City, Missouri

Missouri Utilities Company
Cape Girardeau, Missouri

Monongahela Power Company
Fairmont, West Virginia

Montana-Dakota Utilities Company
Bismarck, North Dakota

The Montana Power Company
Butte, Montana

Nevada Power Company
Las Vegas, Nevada

New England Electric System
Westborough, Massachusetts

New England Gas and Electric
Association
Cambridge, Massachusetts

New Mexico Electric Service Company
Hobbs, New Mexico

Newport Electric Corporation
Newport, Rhode Island

New Orleans Public Service Inc.
New Orleans, Louisiana

New York State Electric and Gas Corporation
New York, New York

Niagara Mohawk Power Corporation
Syracuse, New York

Northern States Power Company
Minneapolis, Minnesota

Northwestern Public Service Company
Huron, South Dakota

Ohio Edison Company
Akron, Ohio

Ohio Power Company
Canton, Ohio

Oklahoma Gas and Electric Company
Oklahoma City, Oklahoma

Orange and Rockland Utilities, Inc.
Pearl River, New York

Otter Tail Power Company
Fergus Falls, Minnesota

Pacific Power & Light Company
Portland, Oregon

Pennsylvania Power & Light Company
Allentown, Pennsylvania

Portland General Electric Company
Portland, Oregon

The Potomac Edison Company
Hagerstown, Maryland

Public Service Company of Indiana, Inc.
Plainfield, Indiana

Public Service Company of New Hampshire
Manchester, New Hampshire

Public Service Company of New Mexico
Albuqeurque, New Mexico

Public Service Electric & Gas Company
Newark, New Jersey

Rochester Gas & Electric Company
Rochester, New York

Savannah Electric and Power Company
Savannah, Georgia

Sierra Pacific Power Company
Reno, Nevada

South Carolina Electric and Gas Company
Columbia, South Carolina

Southern Indiana Gas & Electric Company
Evansville, Indiana

Southwestern Public Service Company
Roswell, New Mexico

Texas Electric Service Company
Fort Worth, Texas

Texas Power & Light Company
Dallas, Texas

Texas Utilities Company
Dallas, Texas

Tucson Electric Power Company
Tucson, Arizona

UGI Corporation
Valley Forge, Pennsylvania

Upper Peninsula Power Company
Houghton, Michigan

Utah Power & Light Company
Salt Lake City, Utah

Virginia Electric & Power Company
Richmond, Virginia

West Penn Power Company
Greensburgh, Pennsylvania

Wisconsin Electric Power Company
Milwaukee, Wisconsin

Wisconsin Power & Light Company
Madison, Wisconsin

Wisconsin Public Service Corporation
Green Bay, Wisconsin

Appendix D

Bibliography

Anderson, Frederick. *NEPA in the Courts, A Legal Analysis of the National Environmental Policy Act*, (1973).

Arizona Academy. *Arizona Energy: A Framework for Decision*, (April 1976).

Atomic Energy Commission, Division of Reactor Research and Development. *Power Plant Capital Costs: Current Trends and Sensitivity to Economic Parameters*. Washington, D. C., (October 1974).

Bar Association of the City of New York. *Electricity and the Environment: The Reform of Legal Institutions*, (1972).

Barranger, S. M., Judd, B. R., North D. N. "The Economic and Social Costs of Coal and Nuclear Electric Generation," prepared for the National Science Foundation, GPO Stock Number 038-000-00293-7, (March 1976).

Bennet, Raymond R. "Major Impact of Inflation on Power Plant Economics," *Aware* Magazine, (July 1975).

Berlin, Harriet, et al. "Power Plant Siting--An Overview of Legislation and Litigation." *Environmental Reporter*, Monograph No. 15 (Bureau of National Affairs, June 22, 1973).

Boyd, Robert and Thompson, Roderick. *Electricity Supply Planning When Demand Is Uncertain*, Draft Manuscript, (September 25, 1978).

Breyer, Stephen and MacAvoy, Paul. *Federal Regulation by the Federal Power Commission*. Washington, D. C.: The Brookings Institution, (1974).

Brookhaven National Laboratory, National Center for Analysis of Energy Systems. *State Legislatures and Energy Policy in the Northeast: Energy Facility Siting and Legislative Action*, (June 1977).

Brown, R. V., Kahn, A. S., Peterson, C. R. *Decision Analysis for the Manager*. New York: Holt, Rinehart, and Winston, (1974).

Bruderle, Thomas. *An Executive Summary of National Energy Legislation*, (June 11, 1980).

California Energy Commission. *Biennial Report*, Staff Draft, (1979).

California Energy Commission. *Biennial Report*, (1979).

California Energy Commission. *California's Energy Challenge: The Next 20 Years*, (November 1979).

California Energy Resources Conservation and Development Commission. *California Energy Trends and Choices: 1977 Biennial Report*, (May 1977).

California Energy Commission. *Energy Futures for California: Two Scenarios*, 1978-2000, Staff Draft, (November 1979).

California Energy Commission. "Illusions of a One-Stop Power Plant Siting Agency," 24 *U.C.L.A. L. Rev.* 1313, (1977).

California Energy Commission. *A Methodology for California Electric Energy Forecasting*, (1975).

California Energy Commission. P.G. & E's NOI/AFC for a Coal-Fired Power Plant--Fossil 1 and 2 Preliminary Report, Docket No. 77-N01-4, (November 1978).

California Energy Commission. Power Plant Siting Policy Paper, (November 1978).

California Energy Commission. Summary of the Utility Common Forecasting Methodology, Staff Report, (June 1978).

California Energy Commission. Toward an Alternative Energy Path for California: A Preliminary Action Agenda, Staff Draft, (August 1979).

California Energy Commission. The Warren Alquist Act, (December 1979).

Caraulho, David. "Energy Conservation through the State Public Utility Commissions," 3 Harv. Env. L. Rev. 160, (1979).

Cazalet, E., Judd, B., Miller, A., and Rasmussen, E. "Decision Analysis of California Electric Capacity Expansion," prepared for the California Energy Resources Conservation and Development Commission, Stanford Research Institute (SRI Project 5367), Menlo Park, California, (1976).

Coal-Fired Power Plant Capital Cost Estimates. Final Report, prepared by Bechtal Power Company, EPRI AF-342, (January 1977).

Commonwealth Edison Company, 1979-1988 Peak Load Forecasts (undated).

Congressional Research Service. The Nation's Power Grid Systems Study: An Overview of Economic, Regulatory, and Engineering Aspects. Washington, D. C., (1976).

Costs and Benefits of Over/Under Capacity in Electric Power System Planning. Final Report, prepared by Decision Focus, Inc., EPRI EA-927, (October 1978).

Coupin, YVES. "Decision Making for Nuclear Power Deployment," Power Engineering, p. 68, (June 1979).

Cudahy, Richard D. and Malko, J. Robert. "Electric Peak-Loading Pricing, Madison Gas and Beyond," Wisconsin Law Review, vol. 1976, no. 1.

"Designing Utility Rates to Give the Poor a Break." Consumer Strategy, (July 15, 1975).

Dow Chemical Company, et. al. Energy Industrial Center Study, (June 1975).

Ducsik, Dennis. Electricity Planning and the Environment: Toward a New Role for Government in the Decision Process, (January 1978).

Ducsik, Dennis and Stakow, Don. Reaching Electricity Decisions With Environmental and Social Consequences: A Normative View, Energy Studies Group Monograph No. 1, Center for Technology, Environment, and Development, Clark University, (June 1979)

Edison Electric Institute. Statistical Yearbook of the Electric Utility Industry for 1977, (1978).

Electricity Consumers Resource Council, State Electricity Profiles, Second Edition, (1979).

Electric Power Research Institute. Costs and Benefits of Over/Under Capacity in Electric Power System Planning, (October 1978).

Electric Power Research Institute. How Electric Utilities Forecast, EPRI Symposium Proceedings, (March 1979).

"Environmental Decisionmaking Under DEQA: A Quest for Uniformity," 24 U.C.L.A. L. Rev. 838, (1977).

Farris, Martin T., and Sampson, Roy J. *Public Utilities: Regulation, Management, and Ownership*. Boston, Massachusetts: Houghton Mifflin Company, (1973).

Federal Energy Administration. *Proceedings, Conference on the Challange of Load Management: A Convergence of Diverse Interests*, June 11, 12, 1975, Washington, D. C., (1975).

Fellman, Diane, Winter, Jack V., and Lenerz, David. *Comparative Analysis of Power Plant Siting in the United States*, Ohio Power Siting Commission, Columbus, (June 1, 1977).

Ford Foundation, Energy Policy Project *A Time to Choose*, (Ballinger: 1974).

Garfield, P. J. and Lovejoy, W. F. *Public Utility Economics*, (Prentice Hall: 1974).

General Assembly of the Commonwealth of Pennsylvania, Joint State Government Commission. *Proposed Utility Code*. Harrisburg, Pennsylvania, (1976).

Grainey, Michael. "Energy Conservation: The Federal-State Nexus," 27 *Amer. Univ. Law Rev*. 611, (1978).

Green, Harold. "Public Participation in Nuclear Power Plant Licensing: The Great Delusion," 15 *Wm. and Mary L. Rev*. 503, (1974).

Hemphill, John and Salomon, Stephen. "State Determination of the Need for Power," *Pub. Util. Fortnightly* 25, (August 3, 1978).

Holden, Matthew, Jr. "Electric Energy: Some Major Policy Issues," 102 *Pub. Util. Fortnightly* 17, (September 28, 1978).

Howard, R. A. "Decision Analysis: Applied Decision Theorgy." In *Proceedings of the Fourth International Conference on Operations Research*. New York: Wiley, 1966, pp. 55-71.

Howard R. A. "The Foundations of Decisions Analysis." In *IEEE Transactions on Systems, Science, and Cybernetics*. SSC-4, No. 3, September 1968, pp. 1-9.

Jerabek, Sandra. *A Citizen's Guide to the Fuel Adjustment Clause*. Washington, D. C., Environmental Action Foundation, (August 1975).

Jones, William I. "Origins of the Certificate of Public Convenience and Necessity: Develops in the States, 1870-1920." 79 *Col. L. Rev*. 426, (1979).

Kahn, Alfred E. *The Economics of Regulation: Principles and Institutions*. 2 Vols. New York, New York: John Wiley and Sons, Inc., (1970).

Kaufman, Alvin. "Reliability Criteria--A Cost Benefit Analysis," O. R. Report 75-9, New York State Department of Public Service, Albany, New York, (June 1975).

Komanoff, Charles. *A Comparison of Nuclear and Coal Costs*. Transcript of Testimony Presented before the New Jersey Board of Public Utilities, (October 9, 1978).

Leflar, Robert and Rogol, Martin. "Statute: Consumer Participation in the Regulation of Public Utilities: A Model Act." 13 *Harv. J. of Legis*. No. 2, (February 1976).

Library of Congress, Congressional Research Service. "Are Electric Utilities Gold Plated?" (1979)

Lovins, Amory. Transcript of An Address before the U. S. Department of Energy's Environmental Advisory Committee.

Malko, J. Robert and Stipanuk, David. "Electric Peak-Loading Pricing: A Wisconsin Framework," *Pub. Util. Fortnightly*, (July 15, 1976).

Massachusetts Energy Facilities Siting Council. An Integrated Approach to Regulating Energy Facility Siting, Phase 1 Final Report, (August 1978).

Moody's Investors Service. Moody's Public Utility Manual, (1978).

Morgan, Richard and Jerabek, Sandra. How to Challenge Your Local Electric Utility: A Citizen's Guide to the Power Industry, Washington, D. C.: Environmental Foundation, (1976).

Myhra, David. "Fossil Projects Need Siting Help Too." 100 Pub. Util. Fortnightly 24, (September 29, 1977).

Nassikas, John. "Energy, the Environment, and the Administrative Process" 26 Admin. Law Rev. 165, (September 1974).

National Academy of Public Administration. The Federal System and Energy Facility Siting (undated manuscript).

National Academy of Sciences. Energy in Transition 1985-2010: Final Report of the Committee on Nuclear and Alternative Energy Systems, (December 25, 1979).

National Association of Regulatory Utility Commissioners (NARUC). 1979 Annual Report on Utility and Carrier Regulation, Washington, D. C., (1980).

National Association of Regulatory Utility Commissioners. 1978 Annual Report on Utility and Carrier Regulation, (1979).

National Consumer Information Center. Handbook for Consumer Advocates: Electric Utility Rate Proceedings, Washington, D. C., (1976).

National Governor's Conference. State Perspectives on Energy Facility Siting, (1977).

New England Electric System. NEESPLAN: 1980-1995, (1979).

New England Regional Commission. Power Facility Siting Guidelines in New England, (January 1976).

New Jersey Department of Energy. The New Jersey Energy Maker Plan, (October 1978).

New Jersey Power Pool. Long-Range Plan: 1979, (April 1, 1979).

New Jersey State Energy Office. New York State Energy Maker Plan Final Report, (March 1980).

Mitre Corporation, Netiek Division. Public Participation in Energy-Related Decision Making: Workshop Proceedings, (January 1977).

Olds, F. C. "Power Plant Capital Costs Going Out of Sight." Power Engineering (August 1974).

Oregon Department of Energy. Oregon's Energy Future: Second Annual Report, (January 1, 1978).

Pacific Gas and Electric Company. Electric Supply Planning Process and Current Supply Plans, (October 1979).

Pacific Gas and Electric Company. Forecast of the Demand for Electricity and Natural Gas within the Pacific Gas and Electric Company Service Area 1977-78, (March 1978).

Phillips, Charles. The Economics of Regulation (Irwin: 1969).

Quarles, John. "Federal Regulation of New Industrial Plants" Environment Report No. 28, (May 4, 1979).

Raffle, Bradley. "The New Clean Air Act - Getting Clean and Staying Clean." *Environment Reporter* Monograph No. 26, (May 19, 1978).

"Report on Reliability Survey of Industrial Plants," Part 1. *IEEE Transactions on Industry Applications*, vol. 1A-10, No. 2, (March 1974).

Resources for the Future. *Energy For the Next Twenty Years* (Ballinger, 1979).

Richetto, Jeffrey. "Strategy for the Siting of Electric Energy Facilities." 101 *Pub. Utilities Fortnightly* 29, (June 22, 1978).

Rowden, Marcus. "Licensing of Nuclear Power Plants." II *Regulation* 40, (January/ Rebruary 1978).

Schell, T. "Public Participation in the Regulation of Virginia Utilities." 18 *William and Mary L. R*. 73, (Fall 1976).

Schroeder, C. and Enholm, R. "The Need for Power Issue in the Context of Recent State Power Plant Siting Legislation," (May 1979).

Sheahan, Richard T. Fueling the Future: *An Environmental and Energy Primer*. New York, N. Y., St. Martin's Press, (1976).

Southern Interstate Nuclear Board. *State Utility Regulation: The Challenge Ahead*, (February 1976).

Southern State Energy Board. *Energy Facility Siting in the United States*, (February 1978).

Spengler, Joseph J. "The Public Utility Problem Viewed Historically," *A Critique of Administrative Regulation of Public Utilities*, Warren J. Samuels and Harry M. Trebing, eds. East Lansing, Michigan, Michigan State University, (1972).

State of Maryland, *Report of the Governor's Commission to Study the Public Service Commission Law*, (February 1980).

"State Regulation of Power Plant Siting." 3 *Env. L*. 273, (Summer 1973).

Stoker, William, Editor. Electric Power Reform: *The Alternatives for Michigan* (Univ. of Michigan: 1976).

Stow, Robert. "New Factors in Utility Load Forecasting." *Pub. Util. Forecasting* 19, (July 19, 1979).

Streiff, C. J. "Procedures Before the Pennsylvania PUC." 15 *Dusquene L. R*. 645, (Summery 1977).

Sullivan, James D. and Fenn, Anne H. "Role of People's Counsels in Improving Public Participation in Public Utility Policy Making," Washington, D. C., National Council for the Public Assessment of Technology, 1976. (unpublished ms.)

Sullivan, Thomas, Editor. Energy Users 1979: *A Comprehensive Analysis of the National Energy Act*, (April 1979).

"TVA's Statutory Authority to Promote Energy Conservation." 44 *L. R*. 845, (September 1977).

Tversky, A. and Kahneman. "Judgment Under Uncertainty: Heuristics and Biases." *Science*, 185 (1974), pp. 1124-1131.

U. S. Department of Agriculture, Rural Electrification Administration, *1975 Annual Statistical Report*, Washington, D. C., (March 1976).

U. S. Department of Energy. Annual Report to Congress, (April 27, 1979).

U. S. Department of Energy. Electric Power Supply and Demand 1978-1987 for the Contiguous United States, (July 1978).

U. S. Department of Energy. Bulk Electric Power Load and Supply Projections 1988-1997, Contiguous United States, (December 1978).

U. S. Department of Energy, Economic Regulatory Administration. The National Power Grid Study, (January 1980).

U. S. Department of Energy. Energy Information Administration Inventory of Power Plants in the United States-December 1979, (June 6, 1980).

U. S. Department of Energy, Office of Public Affairs. The National Energy Act: General Information, (November 1978).

U. S. Department of Energy. National Energy Plan II, (May 1979).

U. S. Federal Energy Administration. Structural Reforms in the Electric Power Industry (undated).

U. S. Federal Power Commission. A Study of the Electric Utility Industry, Washington, D. C., (1974).

U. S. General Accounting Office. "Electric Development in the Pacific Southwest," Report to the Congress by the Comptroller General, (October 16, 1979).

U. S. General Accounting Office. National Energy Policy: An Agenda for Analysis, (January 27, 1977).

U. S. General Accounting Office. Triennial Assessment of the Tennessee Valley Authority--Fiscal Years 1977-78, August 13, 1980).

U. S. Library of Congress, Congressional Research Service. The Nation's Power Grid Systems Study: An Overview of Economic, Regulatory, and Engineering Aspects, Washington, D. C., (1976).

U. S. Nuclear Regulatory Commission. Improving Regulatory Effectiveness in Federal/State Siting Actions (NUREG-0195), (May 1977).

U. S. Nuclear Regulatory Commission. Need for Power: Determinants in the State Decision-Making Process (NUREG-0199), Nuclear Regulatory Commission, (March 1978).

U. S. Nuclear Regulatory Commission. Reactor Safety Study. Main Report (NUREG-75/104), (October 1975).

U. S. Nuclear Regulatory Commission. State Regulatory Activity Involved in Need for Power (NUREG-0197), (April 1977).

U. S. Office of Consumer Affairs State and Local Programs Division. Directory of Federal, State, County, and City Government Consumer Offices, Washington, D. C., (1976).

U. S. Senate Committee on Interior and Insular Affairs. Electric Utility Policy Issues, Washington, D. C., (1974).

Wengert, Norman and Lawrence, Robert. Regional Factors in Siting and Planning Energy Facilities in the Eleven Western States: A Report to the Western Interstate Nuclear Board, (November 1976).

Wiggins, Lyna and Wormhoudt, Daniel. Siting Coal-Fired Power Plants (unpublished manuscript, December 1978).

Williams, John H. "Power Plant Siting Reform: Panacea or Purge?" Pub. Util. Fortnightly 21, (November 9, 1978).

Wisconsin Office of State Planning and Energy. Wisconsin State Energy Conservation Plan, (December 31, 1977).

Young, H. "Power Plant Siting and the Environment." 26 Okla. L. Rev. 143, (May 1973).

Appendix E

Background of Members of the
American Bar Association
Special Committee on Energy Law

Chairman, Robert B. Krueger, a partner in the Los Angeles firm of Nossaman, Krueger and Marsh, is an authority on public energy law. He is the author of Outer Continental Shelf Lands of the United States (1968) prepared for the Public Land Law Review Commission, and U.S. Options in International Petroleum Affairs (1975) prepared for the Federal Energy Administration. He served as Chairman of the California Advisory Commission on Marine and Coastal Resources (1970-1973). His current public service includes membership on the National Security Council Advisory Committee on the Law of the Sea, chairing its Subcommittee on International Law and Relations, and the U.S. Delegation to the Third United National Law of the Sea Conference. He practices energy law with special emphasis on alternative energy sources. Mr. Krueger undertook his legal education at the University of Michigan (J.D., 1952) where he was Assistant Editor of the Michigan Law Review. He is an Adjunct Professor at the University of Southern California Law Center. He is a member of the Bars of California, Kansas, and the District of Columbia.

John A. Carver is a Professor at the University of Denver College of Law and also serves as Chairman of the Water Resources Committee of the ABA Section of Natural Resources Law. Mr. Carver was an Assistant Secretary of the Department of the Interior for Public Land Management (1961-1964) and Under Secretary of the Interior from 1957-1961. He was appointed a Commissioner for the Federal Power Commission in 1966 and served in that capacity until 1972. Mr. Carver attended Brigham Young University (A.B., 1939) and received an LL.M. from the Georgetown University Law Center in 1947.

Myron M. Cherry is a partner in the Chicago firm of Cherry and Flynn which concentrates on commercial litigation matters. In addition to his trial practice, Mr. Cherry is a specialist in environmental and administrative law and has had extensive experience in litigation involving new power facility projects. Before establishing his present firm, he was associated with the Chicago law firms of McDermott, Will and Emery and Jenner and Block.

He attended the University of Illinois (B.S., 1960) and is a graduate of Northwestern University School of Law (LL.B., 1962) where he served as editor of the Northwestern University Law Review. He is a member of the Bars of Illinois, California and the District of Columbia.

Lynn R. Coleman was sworn in on May 18, 1978, as General Counsel of the U.S. Department of Energy (DOE). As DOE's General Counsel, Mr Coleman was responsible for developing and carrying out all of the Department's legal problems and policies, except for those of the Federal Energy Regulatory Commission, which has a separate legal staff. Before coming to DOE, Mr. Coleman was a partner in Vinson and Elkins of Houston, practicing in Washington, D.C. He engaged primarily in an energy-related practice where his experience included both civil and criminal litigation, work on legislative issues, and practice before Federal regulatory agencies. Mr. Coleman graduated with honors in 1964 from the University of Texas School of Law, where he was an Editor of the Texas Law Review. Following law school he served as law clerk to Judge John R. Brown, U.S. Court of Appeals Judge for the Fifth Circuit. In January, 1981, Mr. Coleman joined the law firm of Skadden, Arps, Slate, Meagher and Flom.

Richard D. Cudahy is a Judge of the U.S. Court of Appeals for the Seventh Circuit residing in Chicago. He formerly was a partner in the firm of Isham, Lincoln and Beale of Washington, D.C. He is a graduate of the U.S. Military Academy (B.S., 1948) and Yale University (J.D., 1955). First admitted to the Bar in Connecticut (1955), Mr. Cudahy has been most active in the State of Wisconsin. Aside from teaching posts at Marquette University (Lecturer in Law, 1962-1966; 1972-1973), the University of

Wisconsin (Visiting Professor of Law, 1966-1967) and George Washington University National Law Center (Adjunct Professor of Law), Mr. Cudahy served as Commissioner (1972-1975) and Chairman (1975) of the Wisconsin Public Service Commission. He also was President and Chief Executive Officer of Patrick Cudahy, Inc. (1961-1971) and has served on numerous business, civic and governmental boards, committees, commissions and councils. In addition to memberships in the District of Columbia, Illinois, Connecticut and Wisconsin Bars, he currently serves as trustee of the Environmental Defense Fund and the Yale Law School Fund.

Harold P. Green, Washington, D. C., a partner in the law firm of Fried, Frank, Harris, Shriver and Kampelman, was admitted to the Bar of Illinois in 1949 and subsequently to the District of Columbia Bar (1954) and the Maryland Bar (1960). A graduate of the University of Chicago (A.B. 1942; J.D. 1948), where he served as a Law Review Editor, Mr. Green worked in the Office of General Counsel of the Atomic Energy Commission from 1950 to 1954 and is currently a Professor of Law and the Director of the Law, Science and Technology Program at the George Washington University National Law Center. He has published numerous works on nuclear power and law technology issues, including the book Government of the Atom: The Integration of Power (1963) which he co-authored. His Energy Law Guide was published in September 1978 as part of the Callaghan Energy Law Service of which he is Editor. In addition to his work with the ABA, Professor Green is a member of the Committee on Scientific Freedom and Responsibility of the American Association for the Advancement of Science, a director of the Institute of Society, Ethics and Life Sciences, and Consulting Editor to the Commerce Clearing House Atomic Energy Law Reporter.

Constance K. Lundberg, a member of Parsons, Behle and Latimer of Salt Lake City, has been involved with environmental and energy resource activities as an advocate and teacher since embarking on her law career. From February 1975 to December 1976, she was Counsel to the Council on Environmental Quality in Washington, D. C. She is a member of the Utah Oil, Gas and Mining Board and has a special interest in mining and reclamation of public lands.

Earl Finbar Murphy is a Professor of Law at Ohio State University College of Law specializing in energy and enviornmental law. Professor Murphy received his legal education at Indiana University (J.D. 1952) and Yale University (LL.M. 1955; J.S.D. 1959). Professor Murphy has been active in environmental and energy law both outside and within the academic community, serving as Chairman of the Ohio Environmental Board of Review from 1972 to 1974 and participating in the Battelle Endowment Energy Seminar at Ohio State University (1977-1978).

George R. Perrine of Houston, Texas, is a Vice President of Tenneco, Inc., a former Chairman of the American Bar Association's Public Utility Law Section and a member of the Association's chief governing and policy body, its House of Delegates. Mr. Perrine was Assistant Commissioner of the Illinois Commerce Commission (1942-1949) and Chairman of that same body from 1953 until 1961. He was President of the Midwestern Gas Transmission Company (1963-1972) and a member of the Iowa State Conference Advisory Commission on Public Utility Valuation and Rate Making Process.

Ronald W. Szwajkowski was admitted to the Illinois Bar in 1970 after completing his legal education at the University of Illinois in 1969 (J.D. with honors). Mr. Szwajkowski spent a year in Germany studying at the Albert Ludgwig Universitat following law school (1970). He is a member of the Chicago law firm of Mayer, Brown and Platt, and his legal practice over the last six years has included a variety of energy problems, including his work for General Electric's Nuclear Energy Operation.

Gary L. Widman, a specialist in environment and natural resources law, has been active in environmental affairs in both the academic community and the Federal government. He, until recently, served as Professor and Director of Resource and Environmental Law Programs at the University of California Hastings College of the Law. He was the project director and principal author of a study of the legal problems of oil shale on public lands. Widman served from 1974 until 1976 in the Executive Office of the President as General Counsel to the Council on Environmental Quality. He now is an Associate Solicitor of the U. S. Department of the Interior in charge of conservation and wildlife matters. Professor Widman received his legal education at Hastings College of Law (J.D., 1962) and the University of Michigan (LL.M., 1966). He was admitted to the California Bar in 1962.

Staff Director

Katherine McG. Sullivan, Washington, D.C., is the Director of the American Bar Association's Division of Public Service Activities. The Division is one of the major program divisions which provides staff support for the Association's many attorney-sponsored programs and activities. These activities are advanced within the Division by a staff of some sixty persons and an annual budget of over $4 million, much of which is derived from Federal and private foundation grants. Prior to becoming Director of the Division of Public Service Activities, she was the Staff Director of the Special Committee on Energy Law. Ms. Sullivan is the co-editor of Federal Regulation of New Industrial Plants (1980), editor and co-author (Chapter 1) of Air Pollution Control: National and International Perspectives (1980), and co-author of Criminal Enforcement of Environmental Laws in Environmental Enforcement (1978). Ms. Sullivan is a graduate of Regis College (A.B., 1971) and has studied at the University of Massachusetts' graduate school in history and economics, and at the Univeraity of Copenhagen, International Studies Division.

Project Staff

R. William Potter, a member of the Bars of New Jersey and California, is a graduate of Princeton University (B.A., 1968) and Rutgers University Law School (J.D., 1973). He has served as counsel to the Department of Environmental Protection of New Jersey; Co-director of the Governor's Task Force on Energy (New Jersey); and Deputy Director of the Department of the Public Advocate of New Jersey, where he directed litigation in such energy related areas as licensing of nuclear power plants, energy development in the coastal zone and public utility financing and construction programs. Since completion of the National Energy Project, he has served on the President's Commission on a National Agenda for the Eighties. He has also worked for the Natural Resources Defense Council and is now an attorney in Princeton, New Jersey.

Alan S. Miller is a member of the Michigan and District of Columbia Bars, and was Assistant Director of the Energy Project. He is now with the Natural Resources Defense Council in Washington, D.C. with responsibility for energy conservation and renewable energy projects. Prior to his service with the Special Committee, Mr. Miller spent a year in Australia as a Fulbright Scholar. He has also been a visiting professor of law at the University of Iowa and for several years was affiliated with the Environmental Law Institute. Mr. Miller holds degrees in law and public policy studies from the University of Michigan and is the author of numerous articles on the legal aspects of energy policy.

Peter Catalano is a member of the District of Columbia Bar. He is a graduate of the State University of New York at Buffalo (B.A., 1976) and the Georgetown University Law Center (J.D., 1979). Since the completion of the National Energy Project he has been Associate Editor of Public Utilities Fortnightly.

Joseph M. Oglander is a member of the District of Columbia Bar. He is a graduate of the University of Pennsylvania (B.A., 1976) and Washington University School of Law (J.D., 1979). Since completion of the National Energy Project he has served as Staff Director of the Special Committee on Energy Law.

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